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# Innovation in Traditional Food Products: Are they Feasible?

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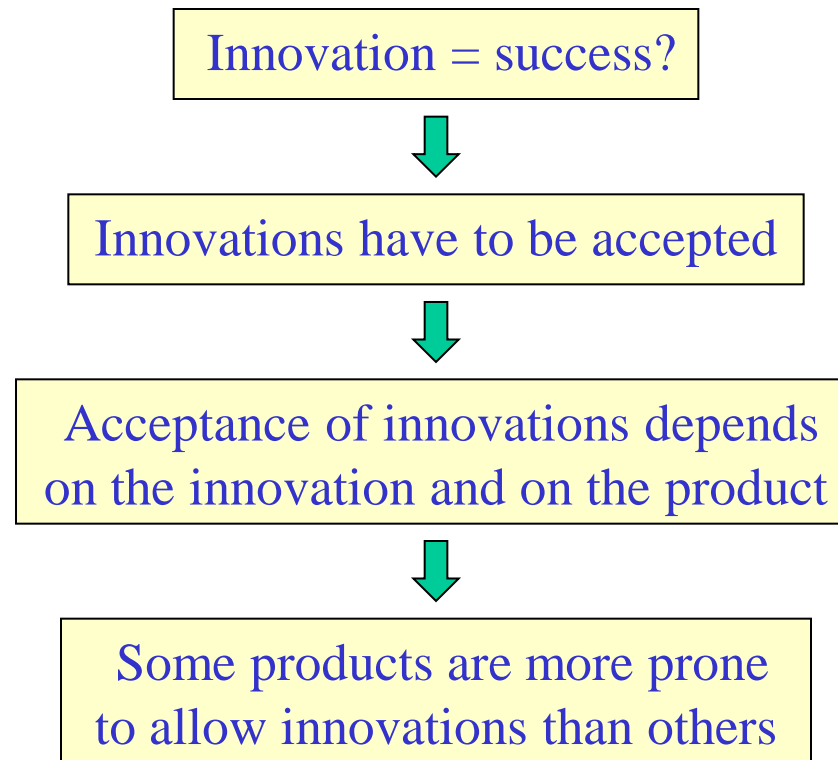
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## Food innovation and competitiveness

- Innovation is widely accepted as one of the keys to being successful



## Why Traditional Food Products

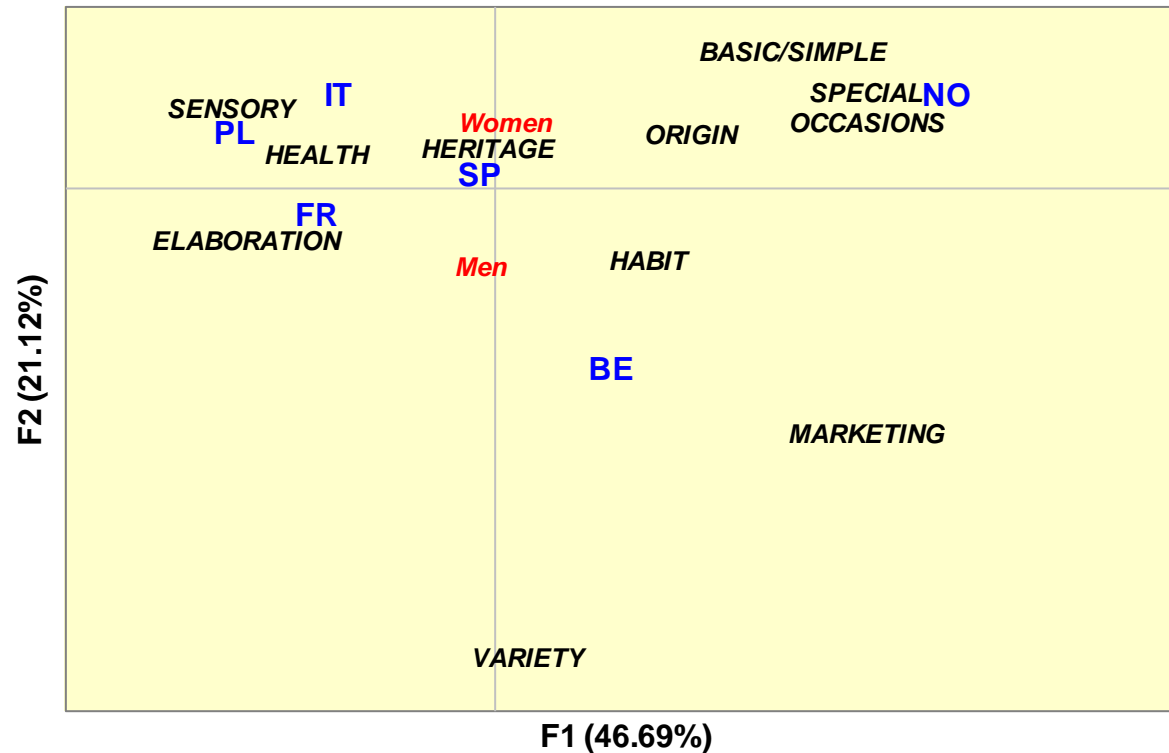
- TFP are an important element of the European Culture, Identity and Heritage
- TFP contribute to the development and sustainability of rural areas
- TFP increase the variety of food choice for consumers
- The traditional food sector in the EU consists mainly of SMEs, representing more than 99% of enterprises and about 70% of the employment in the European food and drink industry
- Will consumers accept innovations in TFP?



Meaning of TFP and Innovation for European consumers?

# What is a Traditional Food?

- Qualitative and Quantitative approach
  - a) Focus groups, free word association, sorting task, ...
  - b) Survey: 4,828 participants (Belgium, France, Italy, Norway, Poland, Spain)





## What is a Traditional Food?

- A traditional food product is: a product frequently consumed or associated to specific celebrations and/or seasons, transmitted from one generation to another, made in a specific way according to the gastronomic heritage, with little or no processing, and distinguished and known because of its sensory properties and associated to a certain local area, region or country
- Food innovation is: the addition of new or unusual ingredient; new combinations of product; different processing systems or elaboration procedures including packaging; coming from different origin or cultures; being presented and/or supplied in new ways; and always having temporary validity

**L. Guerrero et al. 2009.** Consumer-driven definition of traditional food products and innovation in traditional foods. A qualitative cross-cultural study. *Appetite*, 52, 345–354

**L. Guerrero et al. 2010.** Perception of traditional food products in six European regions using free word association. *Food Quality and Preference*, 21, 225–233

**F. Vanhonacker et al. 2010.** How European Consumers Define the Concept of Traditional Food: Evidence from a Survey in Six Countries. *Agribusiness: an International Journal* (in press)

## Innovations in Traditional Food Products

- Qualitatively: focus groups

a) in general, innovations that increase safety or provide the product with important tangible benefits were welcomed when these innovations did not harm the fundamental characteristics of the product

b) health improvement innovations may be accepted, but probably only when providing pronounced tangible benefits for consumers

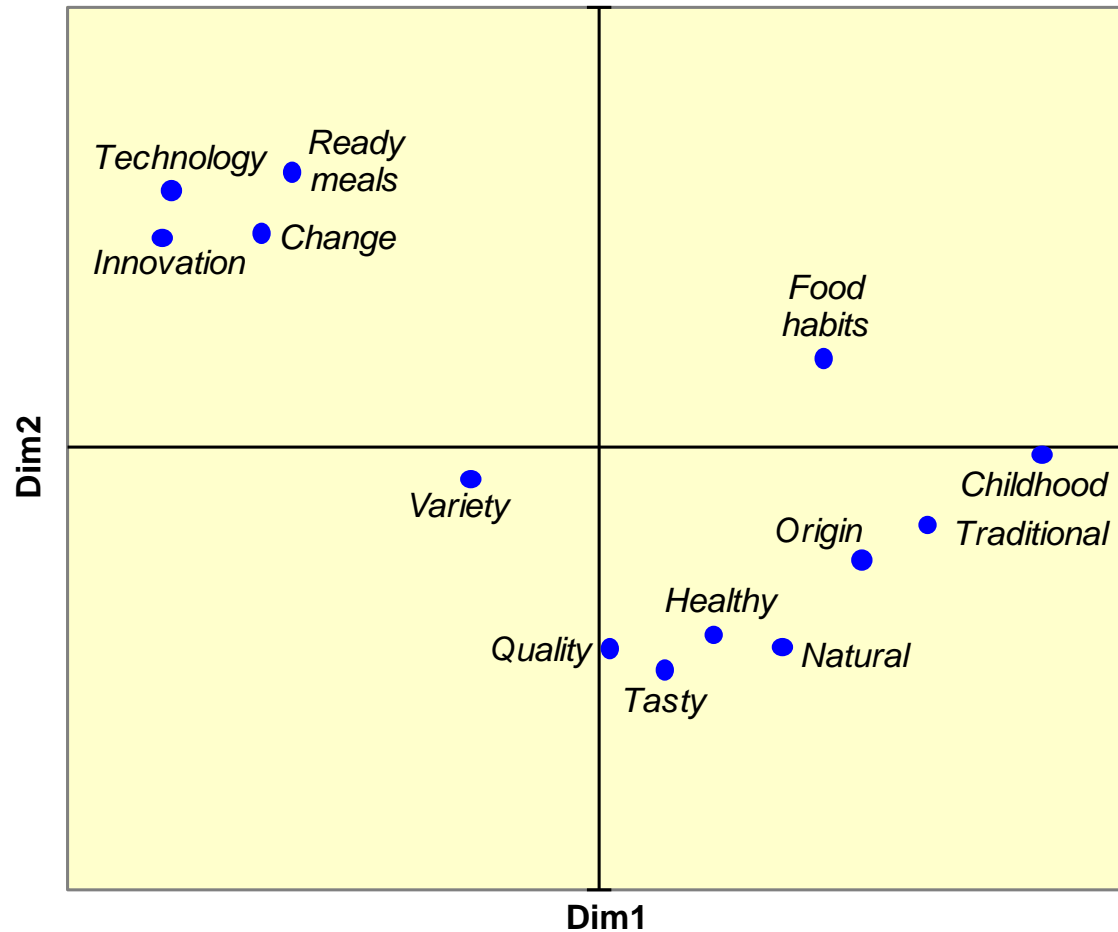
c) convenience-oriented innovations also have some possibilities of success when remarkable changes in the product do not take place

d) sensory innovations in TFP tend to be rejected

e) for each food, each innovation and their combination, different acceptance levels were observed depending on the country or culture, on top of individual consumer's personal interests

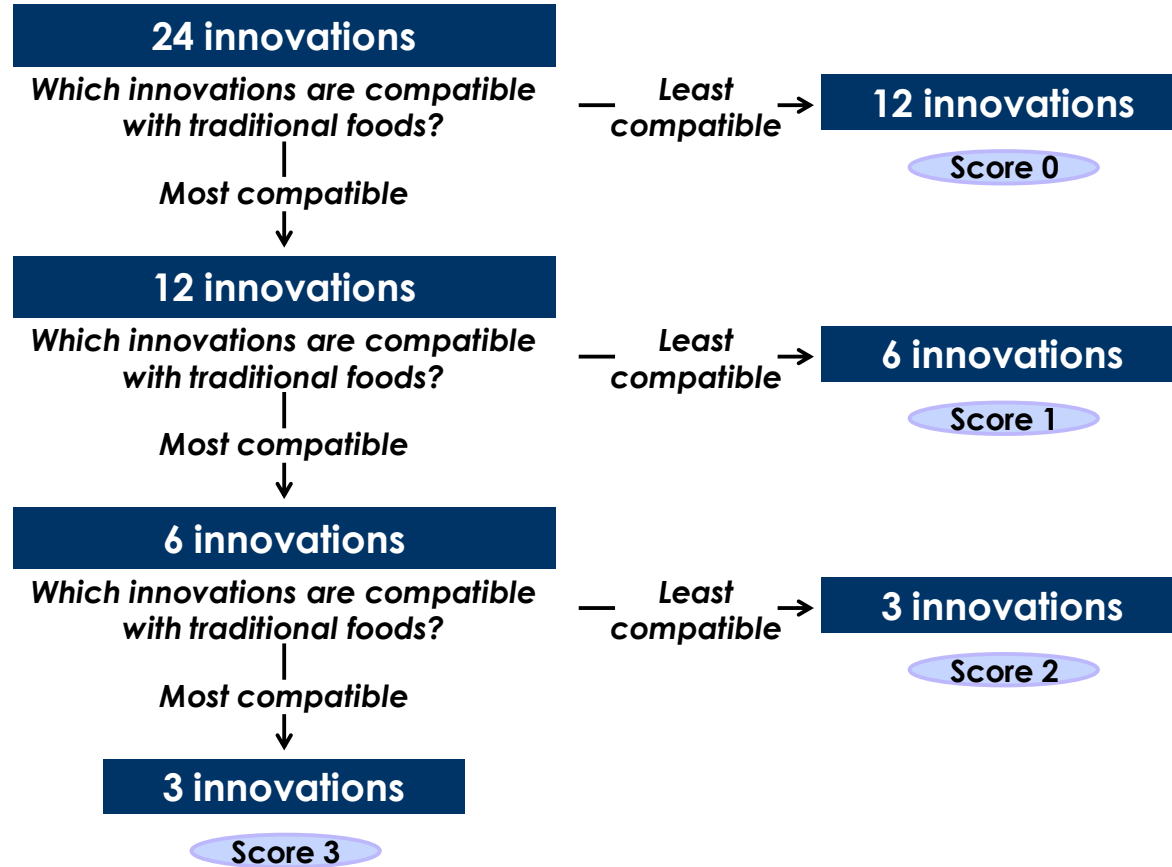
# Innovations in Traditional Food Products

- Qualitatively: sorting task



# Innovations in Traditional Food Products

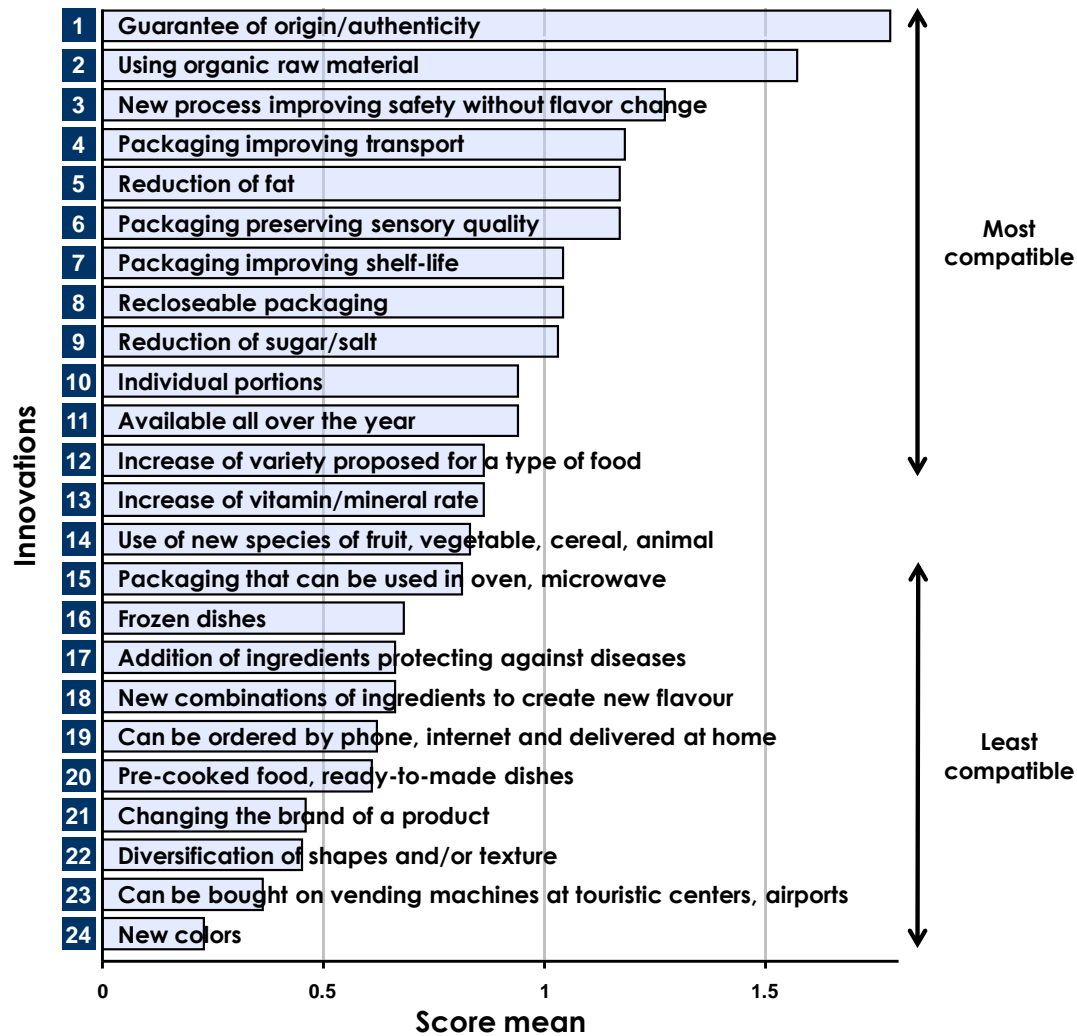
- Qualitatively: dual sorting test



*F. Siret. 2004. Contribution à l'étude du concept de tradition en charcuterie cuite. Deux exemples : le jambon cuit et le pâté de campagne. Thesis, Université de Bourgogne, France*

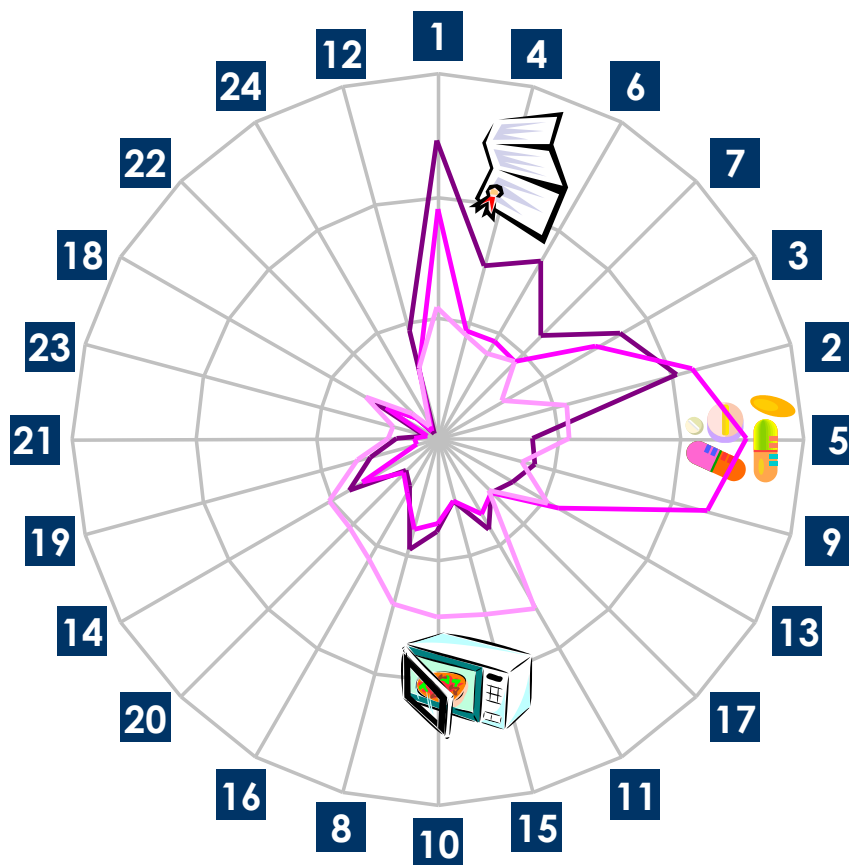


# Innovations in Traditional Food Products



**C. Sulmont et al. 2007.** Which innovations do consumers accept in traditional foods? Application of a dual sorting test. 7th Pangborn Sensory Science Symposium, 12-16 August 2007, Minneapolis, MN, USA

# Innovations in Traditional Food Products



Three clusters:

Cluster 1 (50% of the consumers):  
**authenticity-oriented consumers**

Cluster 2 (26% of the consumers):  
**health-oriented consumers**

Cluster 3 (24% of the consumers):  
**convenience-oriented consumers**

**C. Sulmont et al. 2007.** Which innovations do consumers accept in traditional foods?  
Application of a dual sorting test. 7th Pangborn Sensory Science Symposium, 12-16 August  
2007, Minneapolis, MN, USA

# Innovations in Traditional Food Products



- Quantitatively: survey

## SELECTED INNOVATIONS

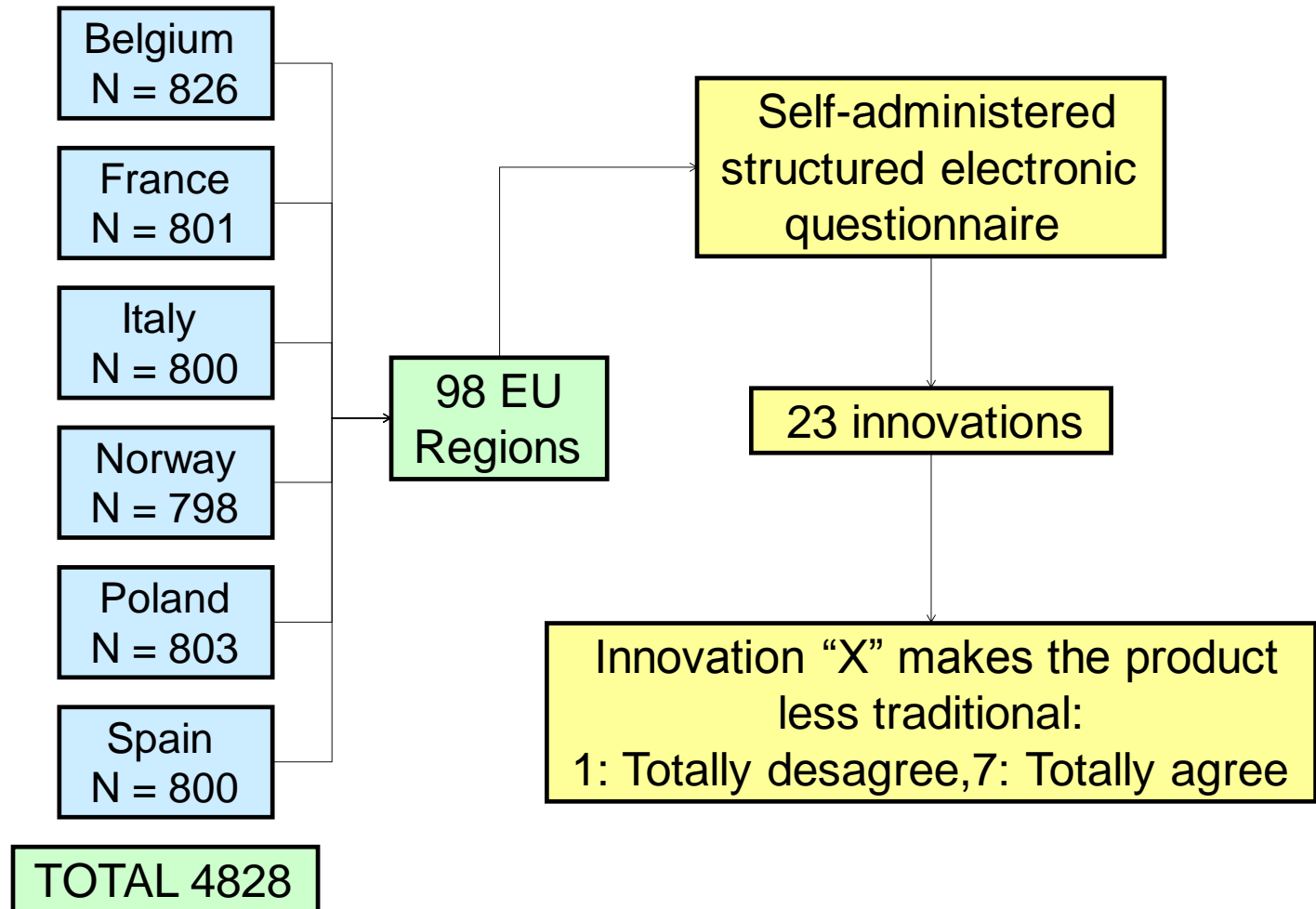
- I1:** Label that guaranties the origin of the raw material and the authentic recipe
- I2:** Using organic raw materials
- I3:** New process improving safety
- I4:** Reduction of fat content
- I5:** Packaging preserving sensory quality (colour, flavour, ...)
- I6:** Recloseable packaging
- I7:** Reduction of sugar content
- I8:** Reduction of salt content
- I9:** Individual portions
- I10:** Availability all over the year
- I11:** More variety in the offer for a type of food
- I12:** Packaging that can be used in oven or microwave
- I13:** Frozen food
- I14:** New combinations of ingredients to create new flavour
- I15:** Pre-cooked food, ready-to-eat-dishes
- I16:** Diversification of shapes and/or texture
- I17:** Can be bought in vending machines
- I18:** Can be obtained via home delivery
- I19:** Introduction on the market under a strong existing brand name
- I20:** Addition of ingredients providing additional health benefits
- I21:** Can be bought for take-away from the specialty shop
- I22:** Package deal (traditional food products sold together with e.g. accompanying spices, wine, sauces)
- I23:** Can be bought from the manufacturer

# Innovations in Traditional Food Products



- Quantitatively: survey

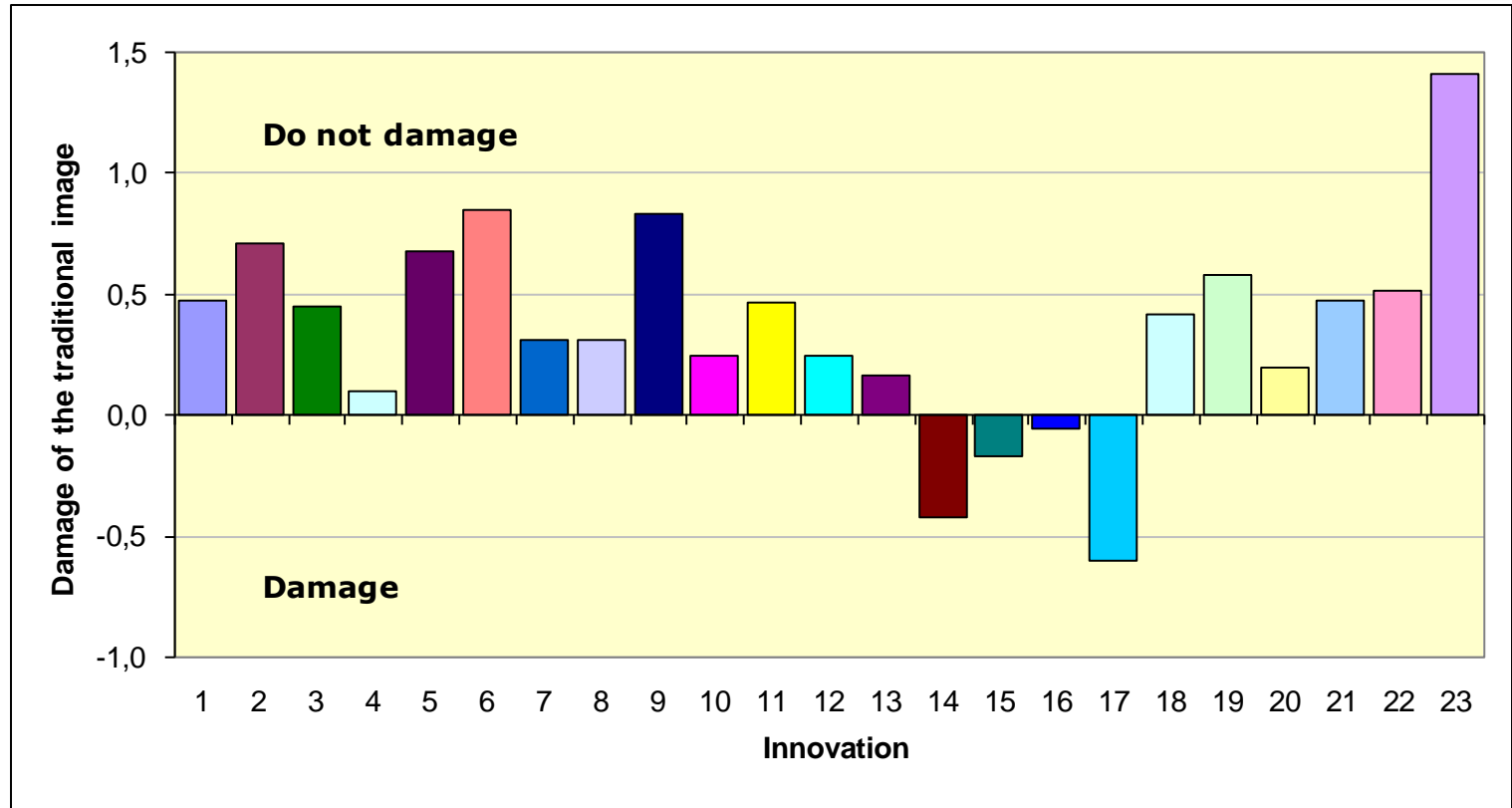
## Participants and instrument



# Innovations in Traditional Food Products



- Quantitatively: survey



**I14:** New combinations of ingredients to create new flavour

**I15:** Pre-cooked food, ready-to-eat-dishes

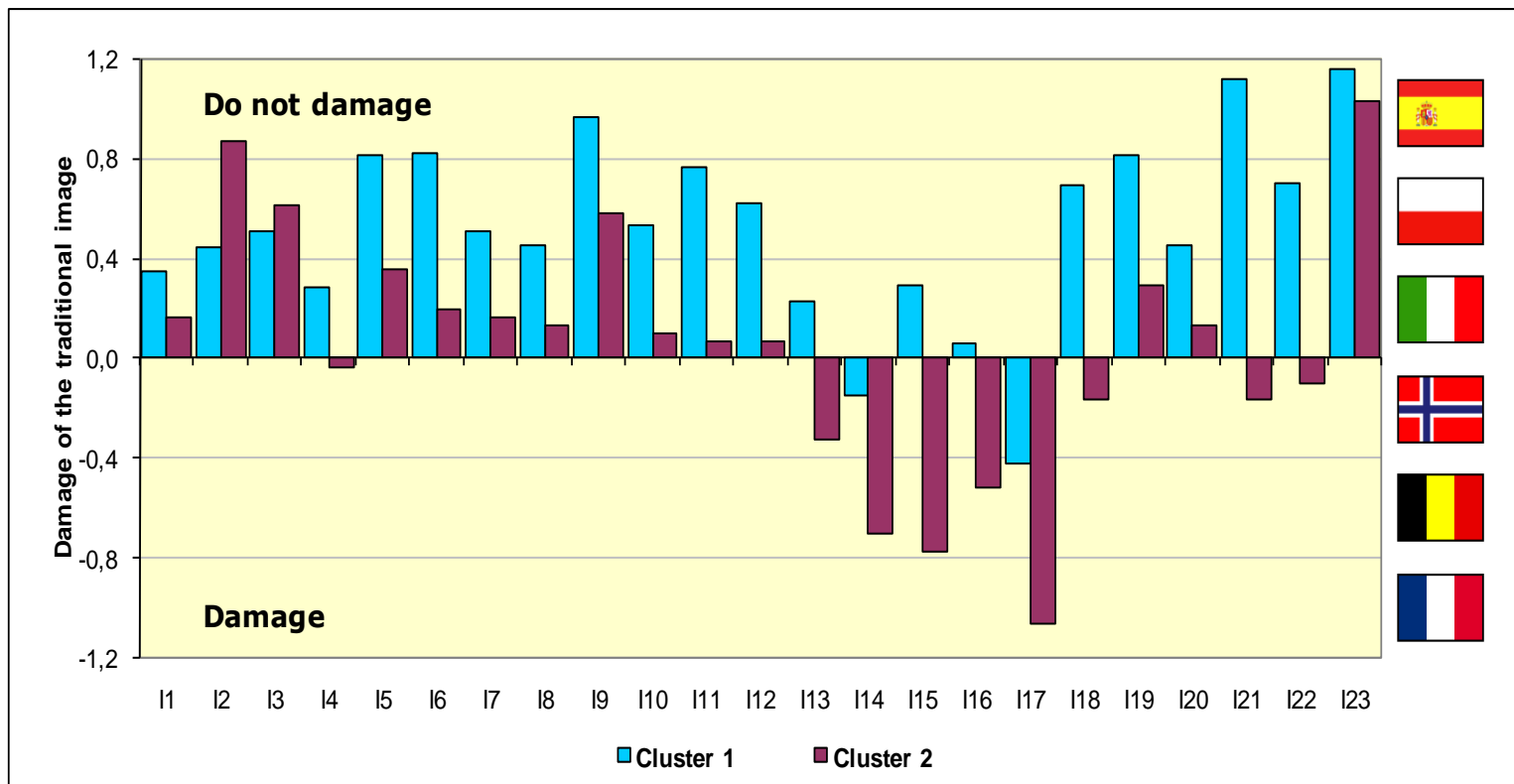
**I16:** Diversification of shapes and/or texture

**I17:** Can be bought in vending machines

# Innovations in Traditional Food Products



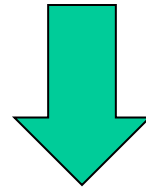
- Quantitatively: survey



- Substantial possibilities for the introduction of innovations in TFP seem to exist without decreasing their positive image, especially for those dealing with the authenticity of the product.

## Innovations in Traditional Food Products

What about specific products?



Discrepancies between what consumers say, think and actually do

## Innovations in Traditional Food Products

- Quantitatively: innovations in different food products (cheese)



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Factor	Level	Utility	Relative Importance (%)
PRICE	Standard	0,45	30,08
	Higher	-0,45	
OMEGA3	No	0,26	17,57
	Yes	-0,26	
ATMOSPHERE	Normal	0,79	52,35
	MAP	-0,79	



Cacio Romano

Factor	Level	Utility	Relative Importance (%)
PRICE	Standard	0,8236	50,9
	Higher	-0,8236	
OMEGA3	No	0,1913	11,8
	Yes	-0,1913	
ATMOSPHERE	Normal	0,6042	37,3
	MAP	-0,6042	

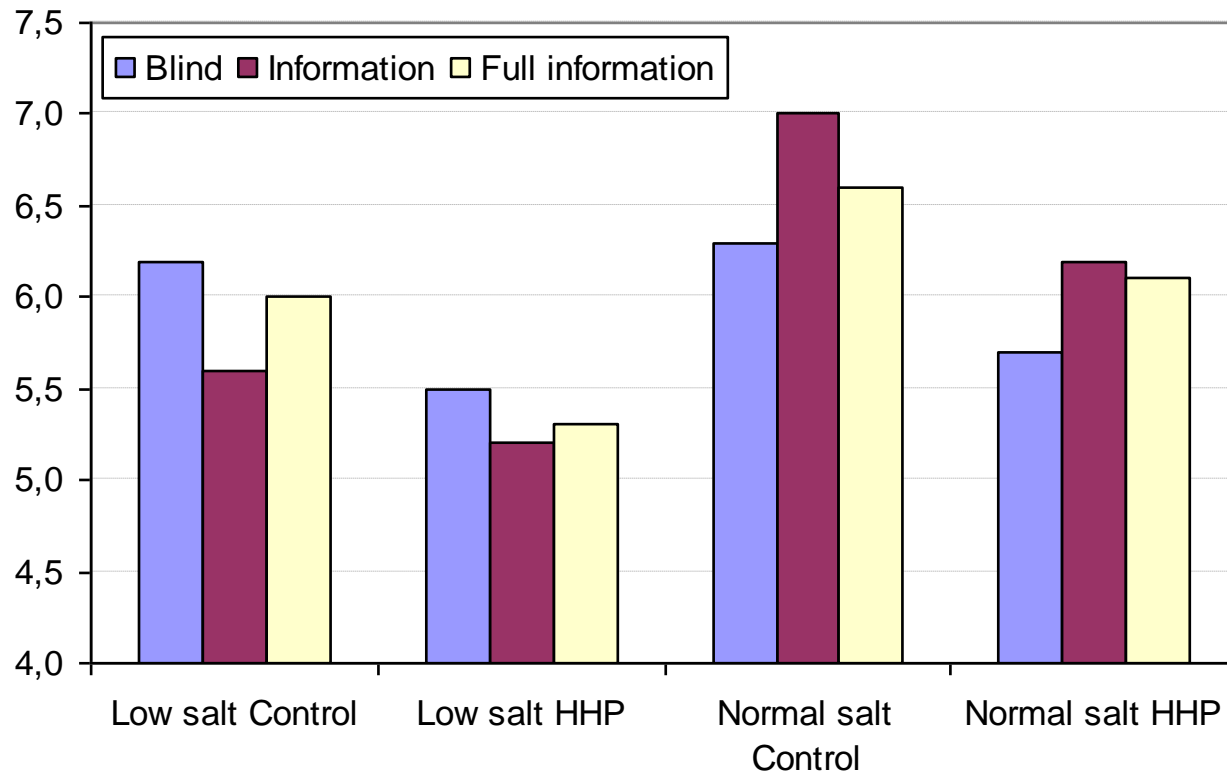


- Some consumer segments (cluster analysis) are positively sensitive to some of the proposed innovations.



## Innovations in Traditional Food Products

- Quantitatively: innovations in different food products (dry-cured ham)



**Mean values for each treatment and type of liking assessed**

- Participants expected the highest liking in the non-innovated products (Normal Salt-Control)

## Innovations in Traditional Food Products

- Quantitatively: innovations in different food products (dry-cured ham)

Factor	Level	Without tasting		After tasting	
		Utility	Importance (%)	Utility	Importance (%)
Salt	Low	-0.83	74.2	-0.41	49.2
	Normal	+0.83		+0.41	
Treatment	Control	+0.29	25.8	+0.42	50.8
	HHP	-0.29		-0.42	

**Relative importance for each factor and utilities for each level**

- Once tasted the products, the relative importance of the different factors changed, thus being similar for both of them

## Innovations in Traditional Food Products

- Quantitatively: innovations in different food products (dry-cured ham)

CLUSTER 1 (33.6%)		Without tasting		After tasting	
Factor	Level	Utility	Importance (%)	Utility	Importance (%)
Salt	Low	+0.49	44.1	+0.42	79.2
	Normal	-0.49		-0.42	
Treatment	Control	-0.62	55.9	+0.11	20.8
	HHP	+0.62		-0.11	

CLUSTER 2 (35.4%)		Without tasting		After tasting	
Factor	Level	Utility	Importance (%)	Utility	Importance (%)
Salt	Low	-1.18	78.4	-0.55	51.1
	Normal	+1.18		+0.55	
Treatment	Control	+0.32	21.6	+0.53	48.9
	HHP	-0.32		-0.53	

CLUSTER 3 (31.0%)		Without tasting		After tasting	
Factor	Level	Utility	Importance (%)	Utility	Importance (%)
Salt	Low	-1.72	56.9	-1.00	55.9
	Normal	+1.72		+1.00	
Treatment	Control	+1.31	43.1	+0.79	44.1
	HHP	-1.31		-0.79	

Relative importance for each factor and cluster and utilities for each level

## Innovations in Traditional Food Products

- Quantitatively: innovations in different food products (dry-cured ham) and willingness to pay (BDM experimental auctions)

Informed condition			
Effect	Significance	Mean values	
		Low	Normal
Salt	<0.0001	1.93	2.27
Treatment	NS	-	-
Salt*Treatment	NS	-	-

Full information condition			
Effect	Significance	Mean values	
		Low	Normal
Salt	<0.0001	1.93	2.22
Treatment	NS	-	-
Salt*Treatment	NS	-	-

**Effect on reservation prices of each innovation applied in dry-cured ham in the two conditions of information**

## Innovations in Traditional Food Products

### Conclusions

- Theoretically, substantial possibilities for the introduction of innovations in TFP seem to exist without decreasing their positive image, especially for those dealing with the authenticity of the product
- Innovations which increase safety and/or improve nutritional content and/or improve convenience are relatively well accepted as long as they do not imply changes in sensory quality
- When facing the product consumers tend to refuse innovations. The strong traditional character of the selected products could explain this result

## Innovations in Traditional Food Products

### Conclusions

- The existence of segments of consumers with different beliefs and attitudes opens some possibilities of success for innovations in the traditional food market
- Although some innovations may be accepted, consumers do not seem to be ready to pay more for an innovative version of the same product even when innovations were appreciated
- The information obtained from this study may support SMEs in certain decisions regarding communication, product positioning and new developments in the traditional food market and when applying food innovations in their TFP.

## The team....



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