



# AQUACULTURE PRODUCTS FOR THE LONG RUN:

Consumer-driven product idea development from Diversify

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# FISH FOR THOUGHT

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- ▶ How can you uncover the next-generation products with the power to grow?
- ▶ How can you address the needs of future consumers while providing the path for current consumers to migrate from the habitual products?

# 'IF YOU BUILD IT THEY WILL COME'

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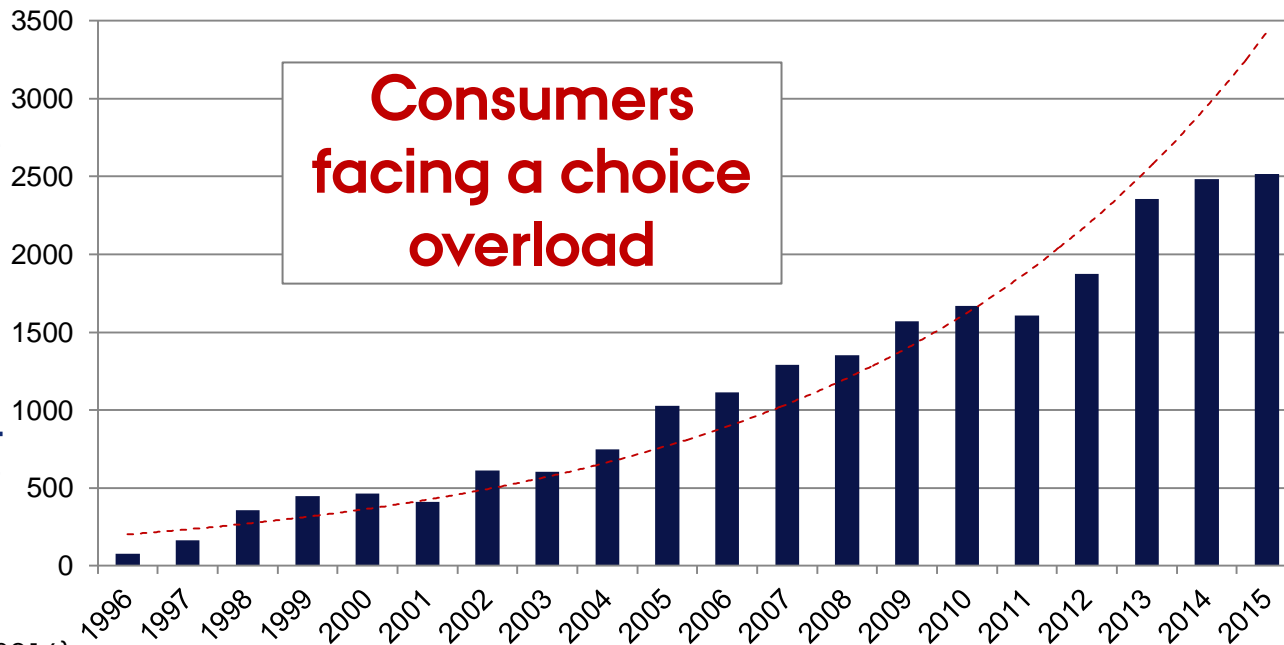
(Banovic et al., 2016a; Füller et al., 2011; Potts et al., 2008; Von Hippel, 2005)

- R&D often provide a brilliant product market-ready ideas poised for success, without involving the end-user who uses these solutions
- Consumer-driven concept development and co-creation involves user from the beginning
- Under new common organisation of the markets (CMO) in fishery and aquaculture products (FAPs), consumers play a pivotal role:

*“Consumers should be enabled to make informed choices but also a more responsible - sustainable consumption.”*

# FISH TODAY

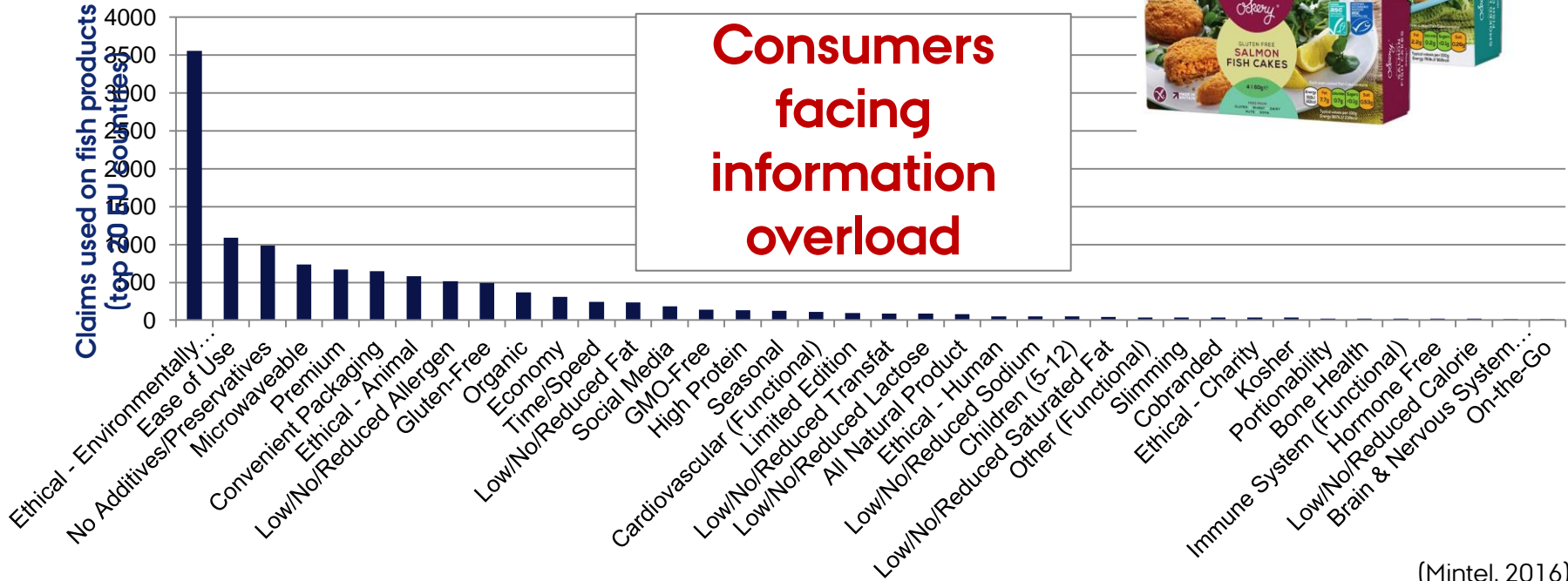
Newly launched fish products  
(top 20 EU countries)



(Mintel, 2016)



# INFORMATION & CLAIM BOMBARDMENT

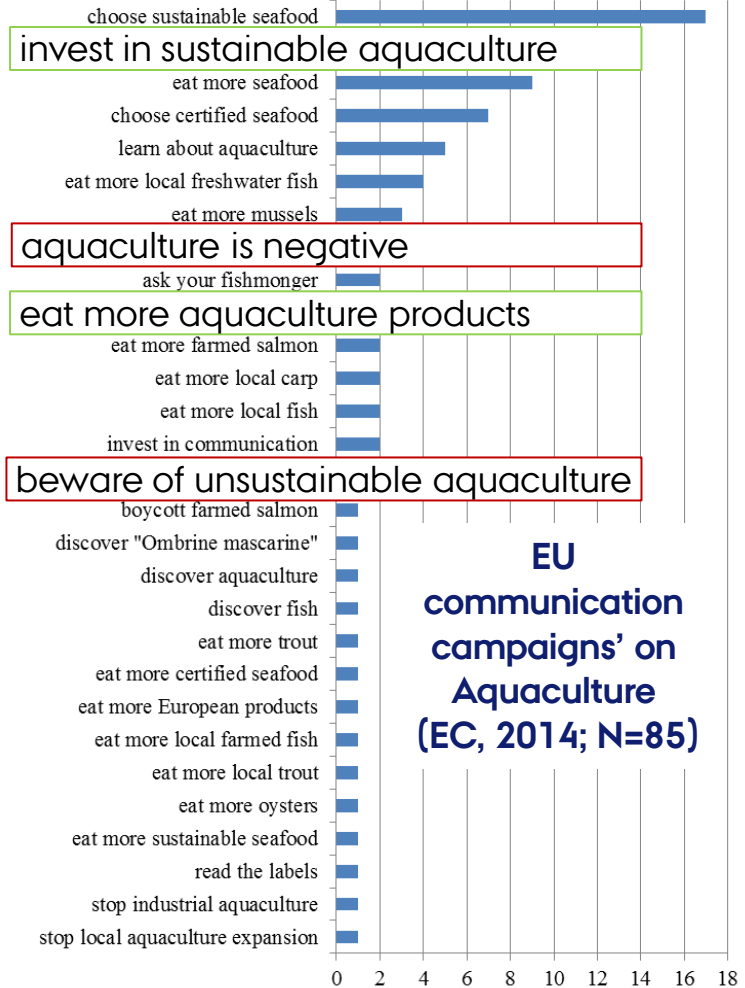
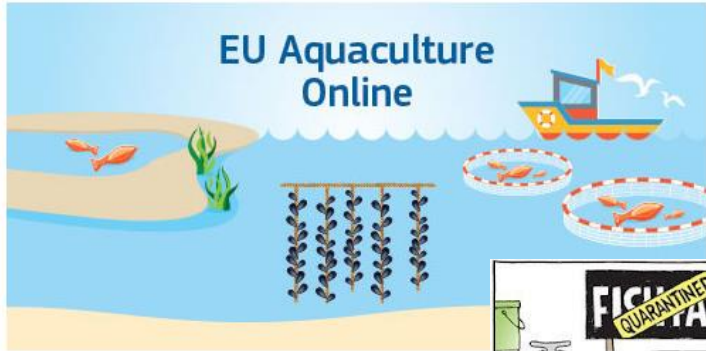


(Mintel, 2016)

# MIXED MESSAGES DON'T HELP

## Aquaculture

Farming finfish, shellfish and aquatic plants is one of the world's fastest growing food sectors, it already provides the planet with about half of all the fish we eat.



# FISH PUZZLE

- ▶ Do consumers distinguish products coming from...



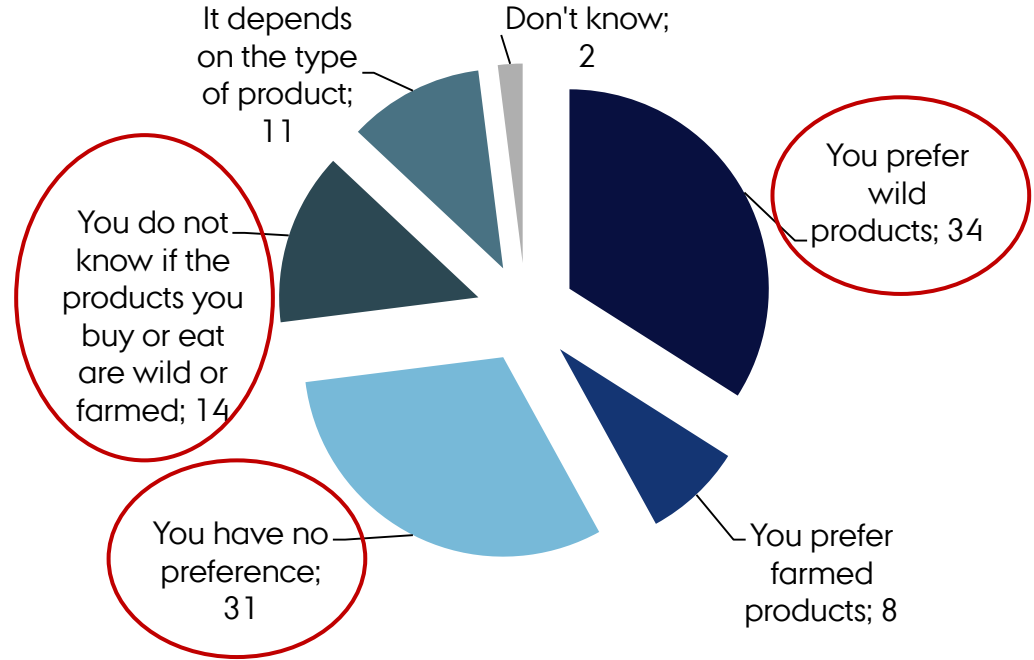
Wild fish



Farmed fish



# AQUACULTURE PRODUCTS (IN)VISIBLE?

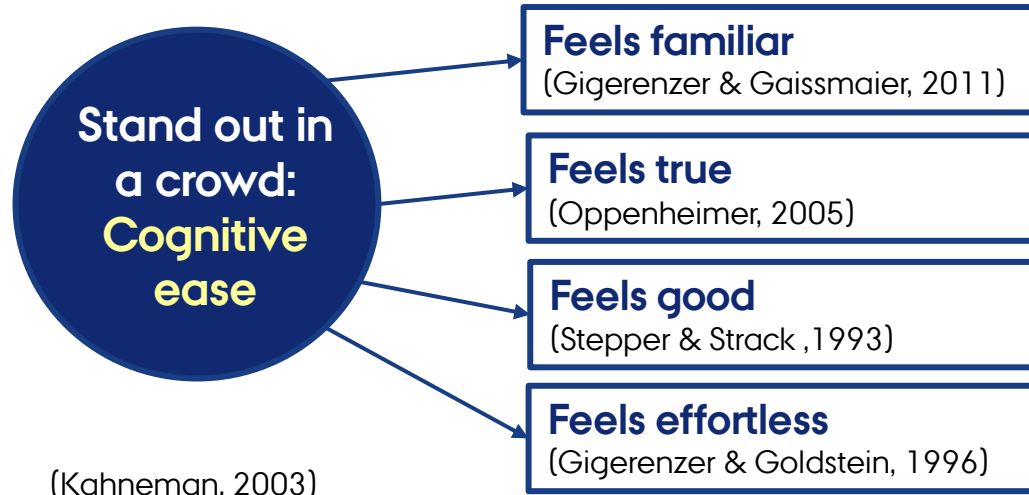


(Special Eurobarometer 450: EU28, N=24452; year 2017)



# CONSUMER IS LIKELY TO IGNORE YOUR PRODUCT TOO...

- ▶ Unless you can make it to....

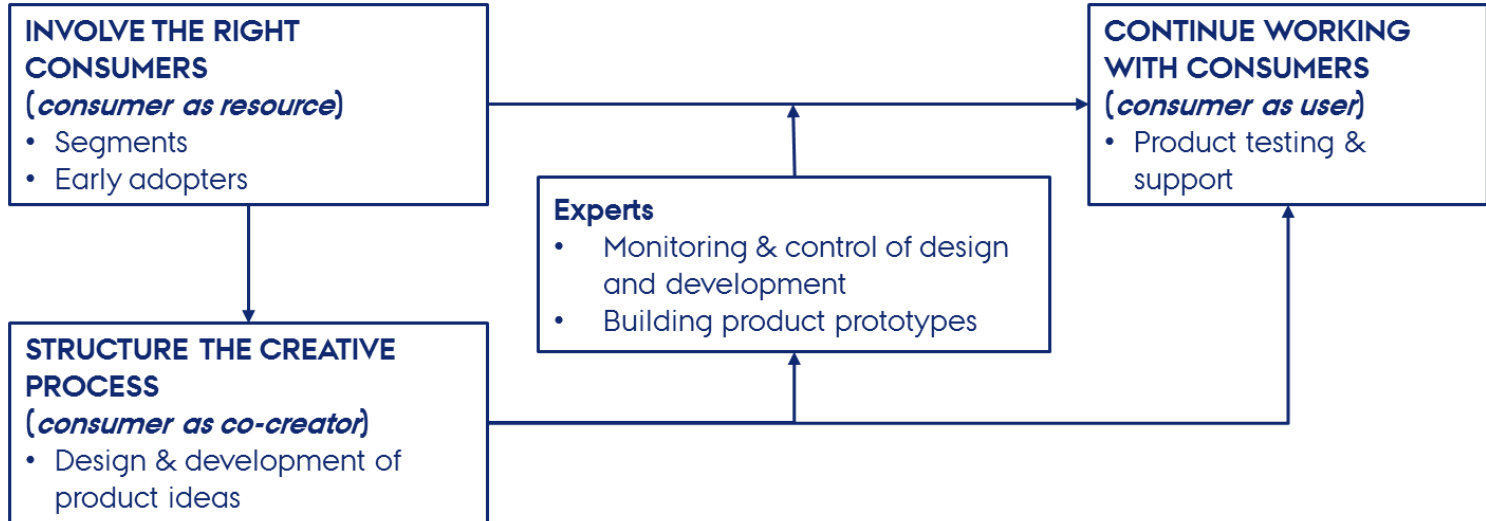


# CONSUMER-DRIVEN PRODUCT IDEAS



[www.diversifyfish.eu](http://www.diversifyfish.eu)

To develop culture, processing and marketing methods for 6 new/emerging finfish species.



(Banovic et al, 2017a; Banovic et al., 2016a)

# CONSUMERS AS RESOURCE

- Involving the right consumer - Online survey in five focal EU fish markets (i.e. FR, GER, IT, SP & UK; N=2500)



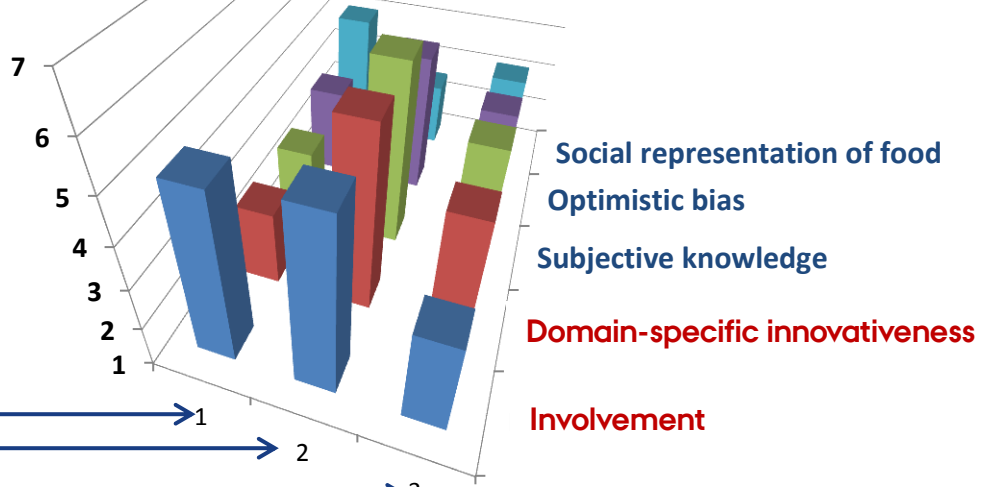
**Early adopters:  
Consumers who count**



**Involved traditional  
(N=728; 30%)**

**Involved innovators  
(N=911; 36%)**

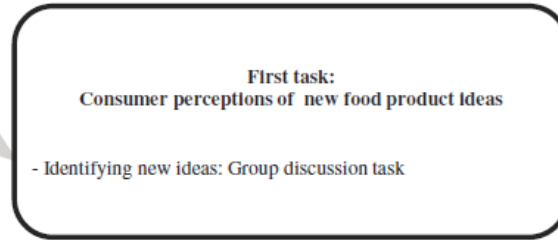
**Ambiguous indifferent  
(N=872; 34%)**



# CONSUMER AS CO-CREATOR



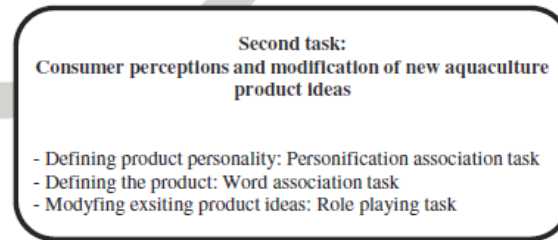
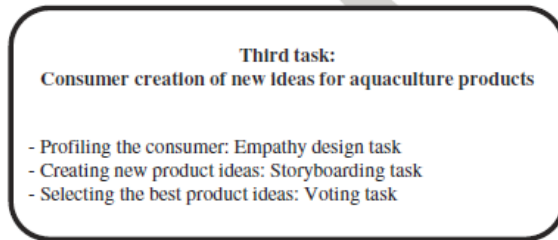
- Ten focus groups in five focal EU fish markets with early adopters (i.e. FR, GER, IT, SP & UK; N=60)



**STARTER IDEAS  
EXPRESSED SIMPLY  
AND CLEARLY**

**New ideas for aquaculture  
product development**

**CREATIVE STIMULUS  
TO DRAW INSPIRATION**



**STRUCTURES THAT  
GIVE THEM CLEAR  
PROBLEMS TO SOLVE**

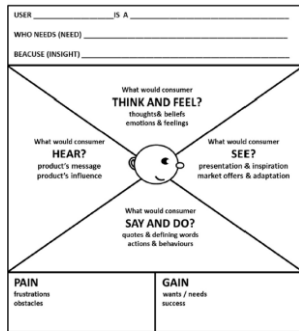


Fig. 1. Research framework.

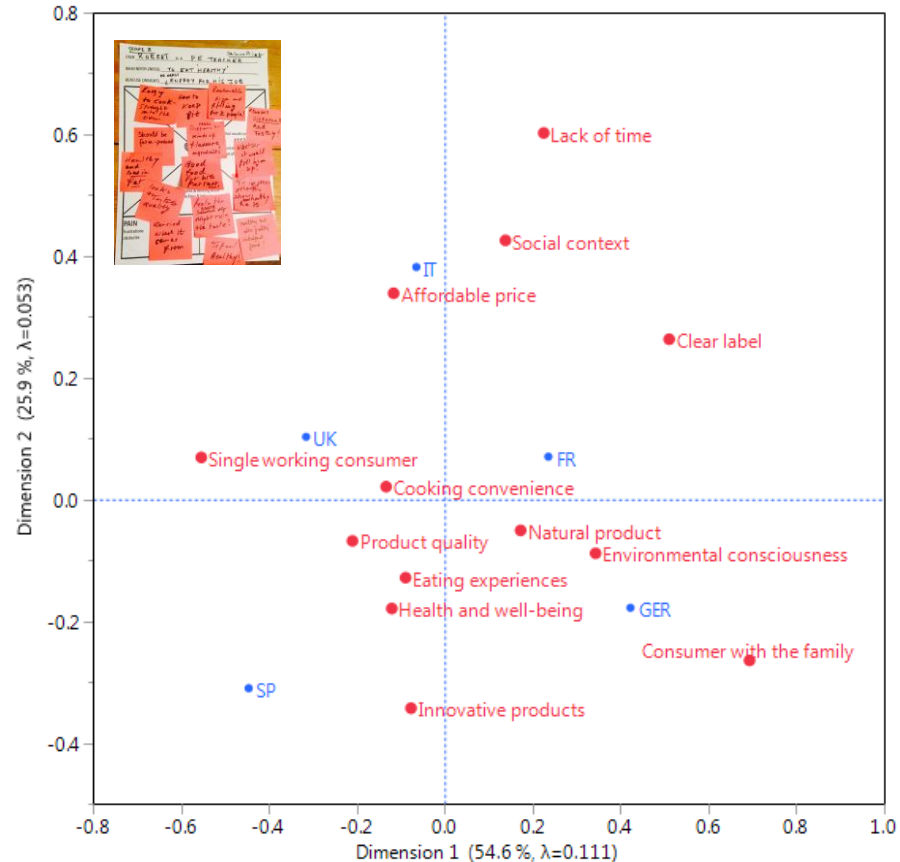
(Banovic et al, 2016a)

# 'ALL THE PLEASURE WITH LITTLE EFFORT'

## ▶ Profiling (empathizing with) the consumer

- preference for products that are quick and easy to cook
- aquaculture products need to be natural, respect the environment and provide good eating experience
- benefits of the aquaculture products linked to the overall feeling of health and well-being

(Banovic et al., 2016a)



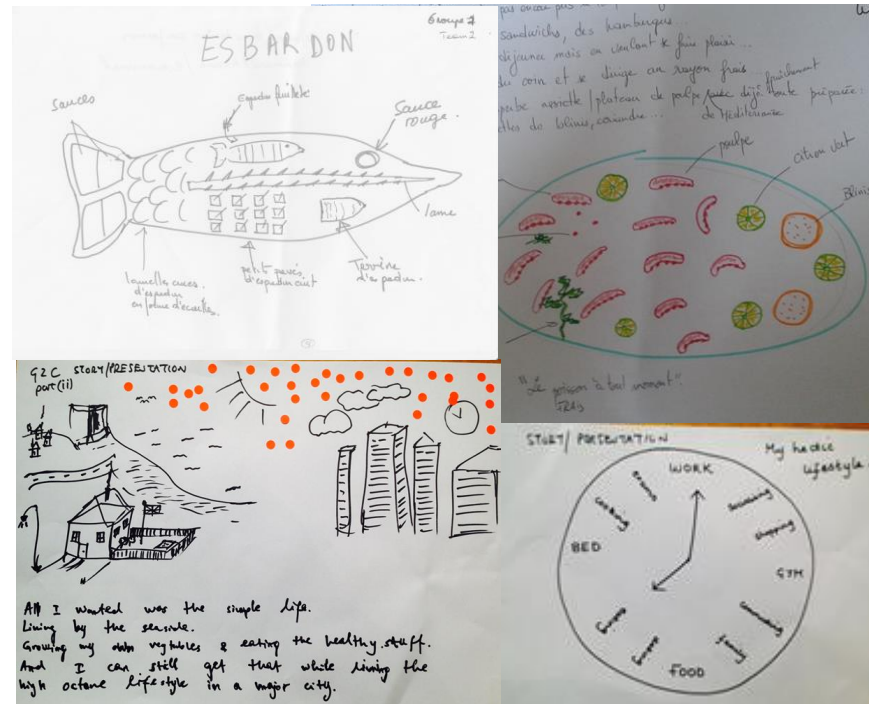
**Table 7**

Short description of the new ideas for aquaculture products from the storyboarding task.

Country	Best voted ideas	Ratings* (Max.)
France	Fresh fish Carpaccio that can be used as starter for a hot meal or as sandwich filling. This Carpaccio is seasoned with ginger and chili and presented as scales of the fish. The product is produced environmentally sustainable. The packaging is a plate that looks like a round box with the compartments and transparent wheel on the top that you can turn to reach different sections.	38
Germany	Fresh fish fillet covered with herbs and spices in the transparent packaging. Different fillet size in the packaging conveying the product message through images and voice: 'For him - Fish for the triathletes'; 'For her - vacation in Provence'.	27
Italy	Fresh fish steak for grilling in the pan. Transparent packaging with a label that guarantees the origin of the product and communicates its quality, signs and references to tradition and respect for the environment.	33
Spain	Fish sausages and fish hamburgers. The main advantage of this product is that the product has no bones. The seasoning is very mild and therefore this product is therefore suitable for children. The product is produced environmentally sustainable.	30
UK	Fresh fish fillet with different 'healthy' seasoning and marinades separately packed that consumer can choose and vary depending on the occasion. This product is sold with recommendation for the appropriate vegetables and wine to accompany the dish. Product message: 'Not two same dishes in a row'; 'You have it ready for you, healthy but still have the hectic lifestyle.'	33

\* Each idea could be rated from 0 to 72.

**'Happiness can be complete,  
tasty and easy to cook'  
(male and female group, Spain)**



(Banovic et al., 2016a)

Fish species	Developed DIVERSIFY product prototypes	
Meagre	Idea 6: Fish burgers shaped as fish	(High processing)
	Idea 4: Ready to eat meal: salad with fish	(Low processing)
Pikeperch	Idea 9: Fish spreads/pate	(High processing)
Grey mullet	Idea 2: Thin smoked fillets	(Medium processing)
	Idea 33: Ready-made fish fillets in olive oil	(Medium processing)
Greater Amberjack	Idea 34: Fresh fish steak for grilling in the pan	(Low processing)

## BUILDING PRODUCT PROTOTYPES



Idea 6: Fish burgers shaped as fish



Idea 4: Ready to eat meal: salad with fish



Idea 9: Fish spreads/pate



Idea 2: Thin smoked fillets



Idea 33: Ready-made fish fillets in olive oil

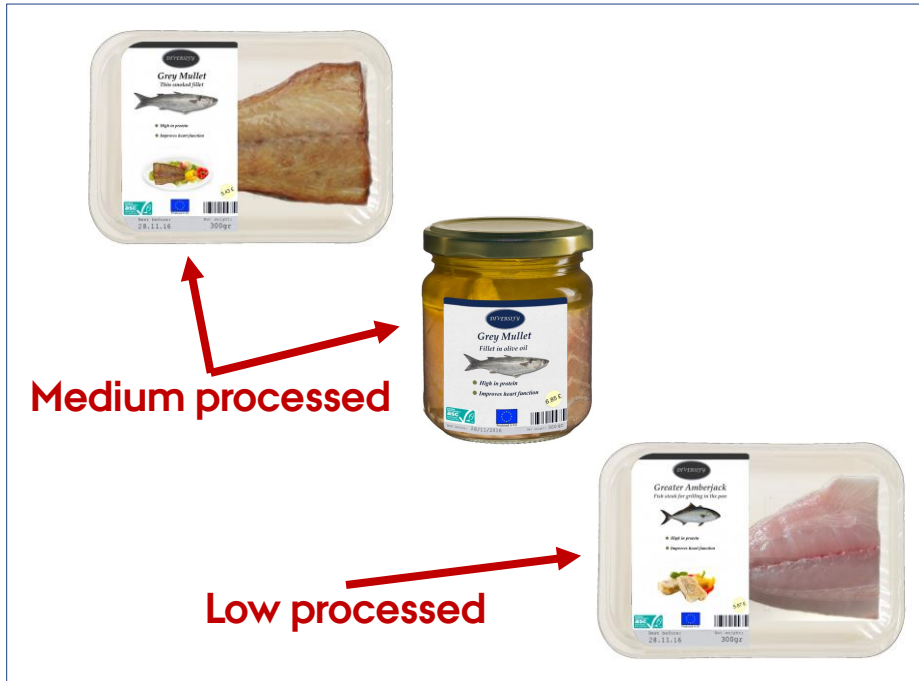


Idea 34: Fresh fish steak for grilling in the pan

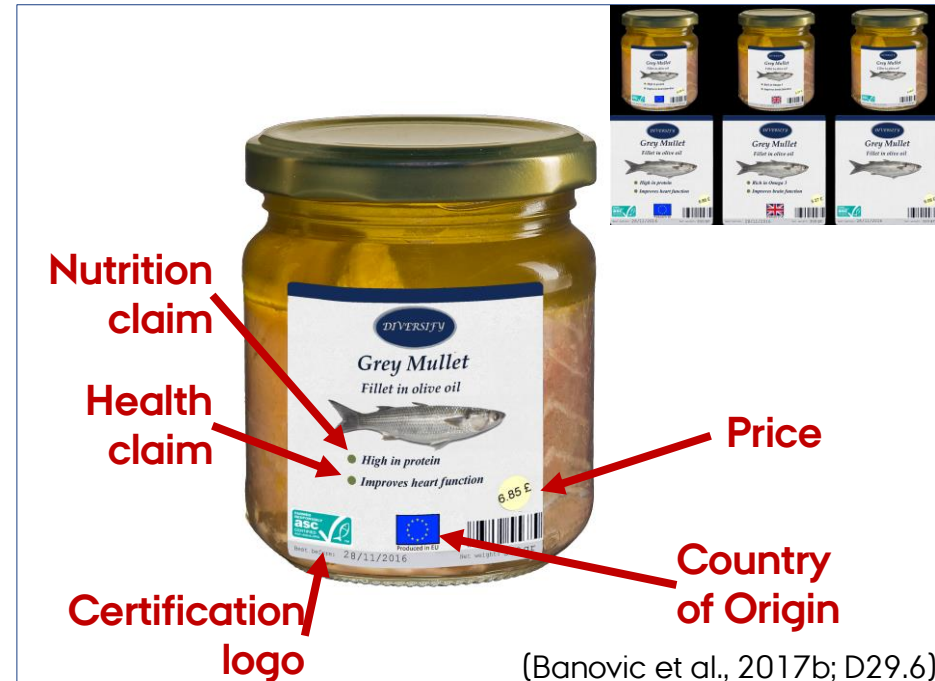
# CONSUMER AS USER

- Continue working with consumer – Choice experiments in focal EU fish markets, 3 products (i.e. FR, GER, IT, SP & UK; N=1500)

## PRODUCT MOCK-UPS

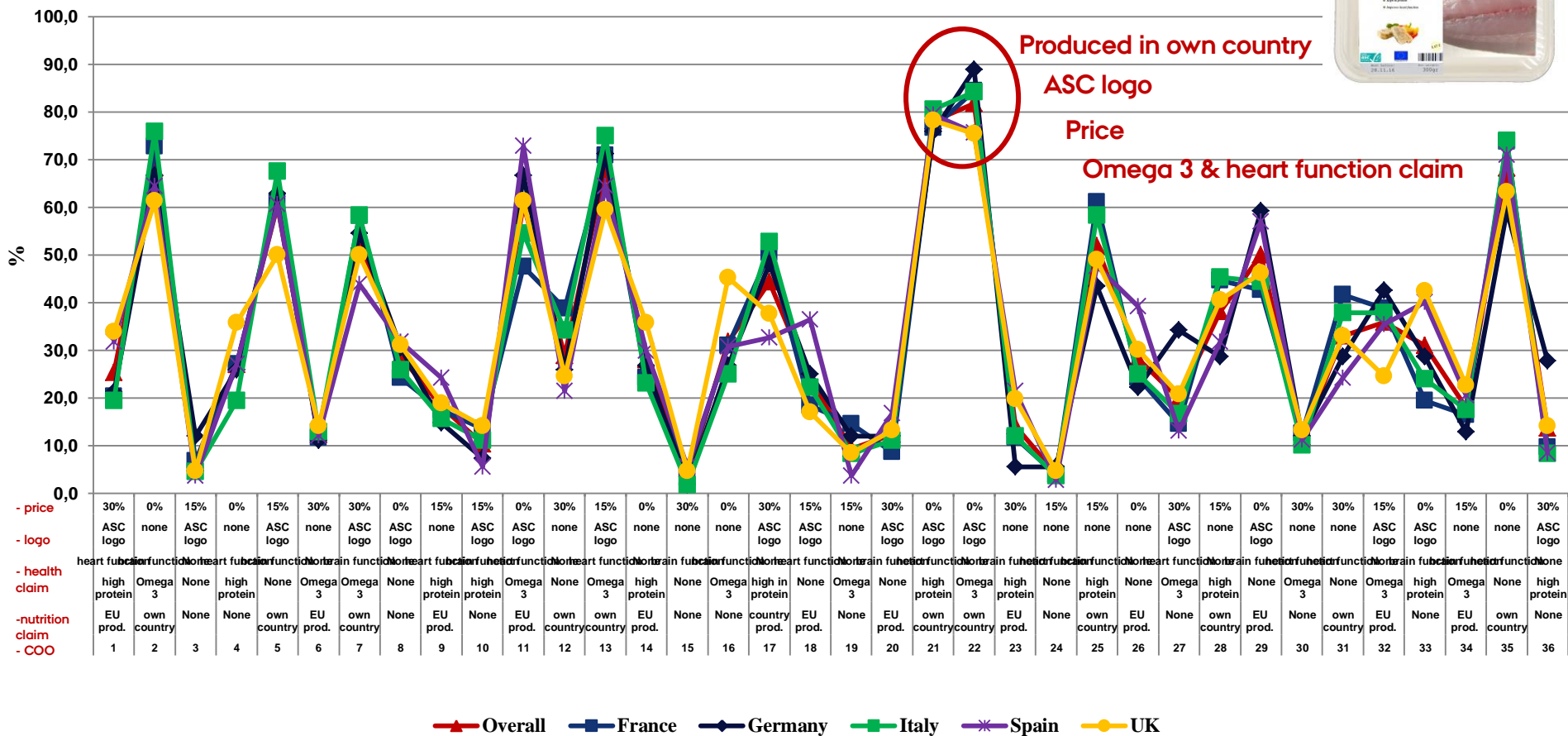


## ATTRIBUTE MANIPULATION





# LIKELIHOOD OF CHOICES FOR NEWLY DEVELOPED MOCK-UPS



# MANAGERIAL IMPLICATIONS

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## GOOD NEWS!

It is possible to create new aquaculture products targeting early adopters  
ACROSS all big EU markets

- ▶ Homogeneous, converging fish-related culture, opportunity to fashion new product concepts at the cross-border European level
- ▶ Similar pattern in consumer choice-drivers, i.e.
  - > COR and price come first, followed by quality certification, while nutrition/health claims appear to have varying and minimal impact and are highly depend on the type of product (e.g. level of processing) and EU country
- ▶ Although...
  - > A certain degree of customisation needed for certain products and countries



# WHAT DID WE LEARN? CREATING NEW AQUACULTURE PRODUCTS



# FUTURE PROSPECTS

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- ▶ **Explore consumers *romantic notion of the nature*** as potential for further development and growth of aquaculture production highly influenced by ethical concerns related to environmental and fish welfare issues
- ▶ **The more we provide solutions for these consumers' concerns, the more positive value perceptions they will have towards aquaculture products**, and the more likely it is that they will trust and buy these products (Banovic et al., 2016a,b,c)
- ▶ However, **never neglect the effect of functional value and sensory aspects** on consumer value perception and its impact on final acceptance of aquaculture products

*"[...]the wilderness is the salvation of the world."*  
(*Walden* by Henry David Thoreau, 1817-1862)

*"Happiness can be complete [...]"*  
(male/female group, Banovic et al., 2016a)



*Mortlake Terrace* (1827), by J.M.W. Turner (1775-1851)

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<http://www.diversifyfish.eu/>



**THANK YOU  
FOR  
YOUR ATTENTION!**

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MAPP CENTRE – RESEARCH ON VALUE CREATION  
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BREMEN, 24<sup>TH</sup> OF MAY 2017



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