

FISH FOR THE FUTURE: WHAT COULD INFLUENCE EUROPEAN CONSUMER CHOICE OF NEW AQUACULTURE PRODUCTS?

EVIDENCE FROM AN EXPERIMENTAL STUDY WITH LOW & MEDIUM PROCESSED PRODUCTS

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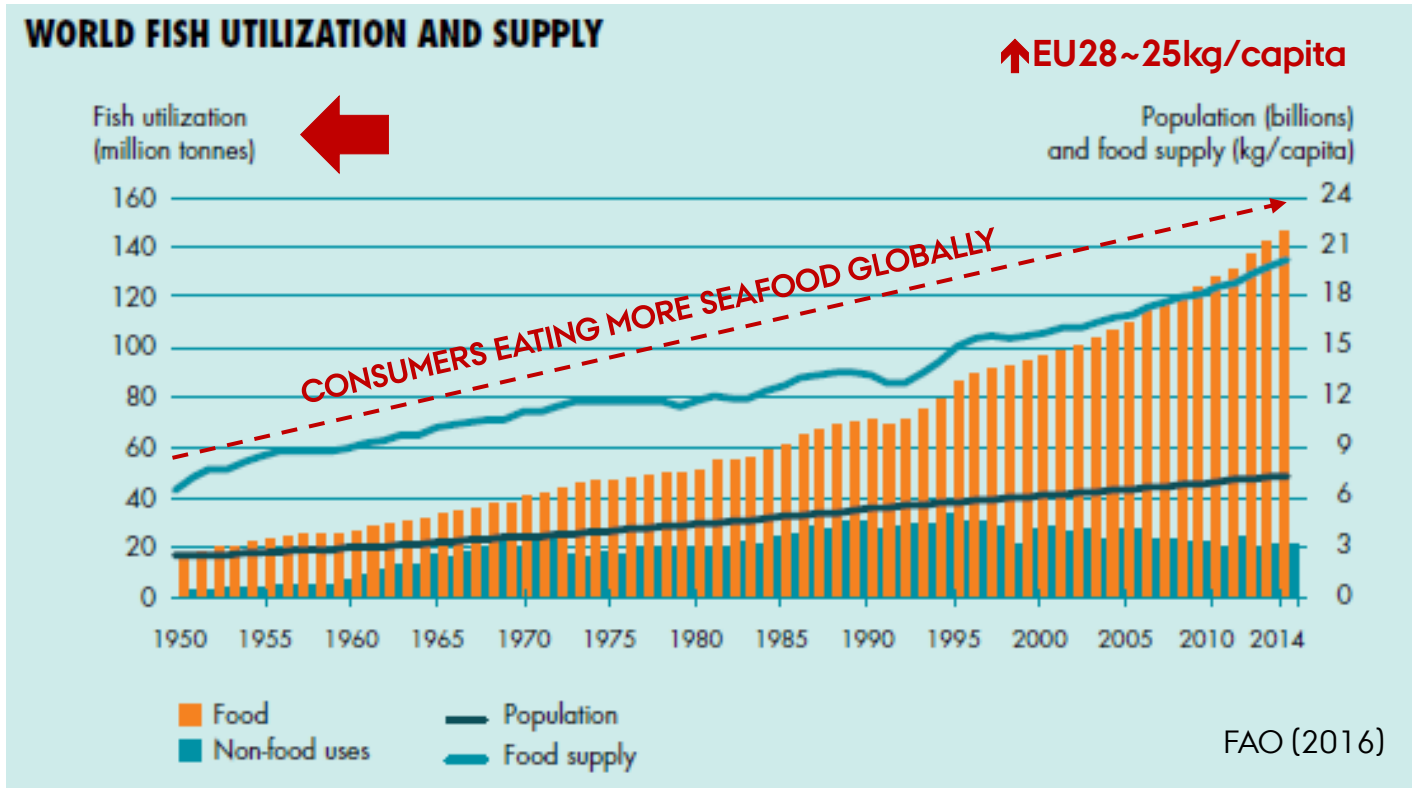
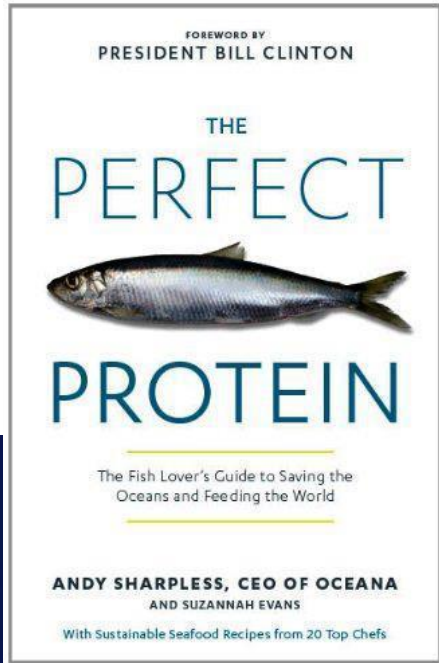
FISH FOR THE FUTURE



Scientific American, March 1956, Magazine ad showing the quick-freezing seafood of the future

- ▶ How to discover new product solutions with the power to grow?
- ▶ What end-product attributes could influence European consumer choice of new aquaculture products?
- ▶ Are the attributes influencing consumer choice the same for different products and across countries?

THE PERFECT PROTEIN?



CREATION



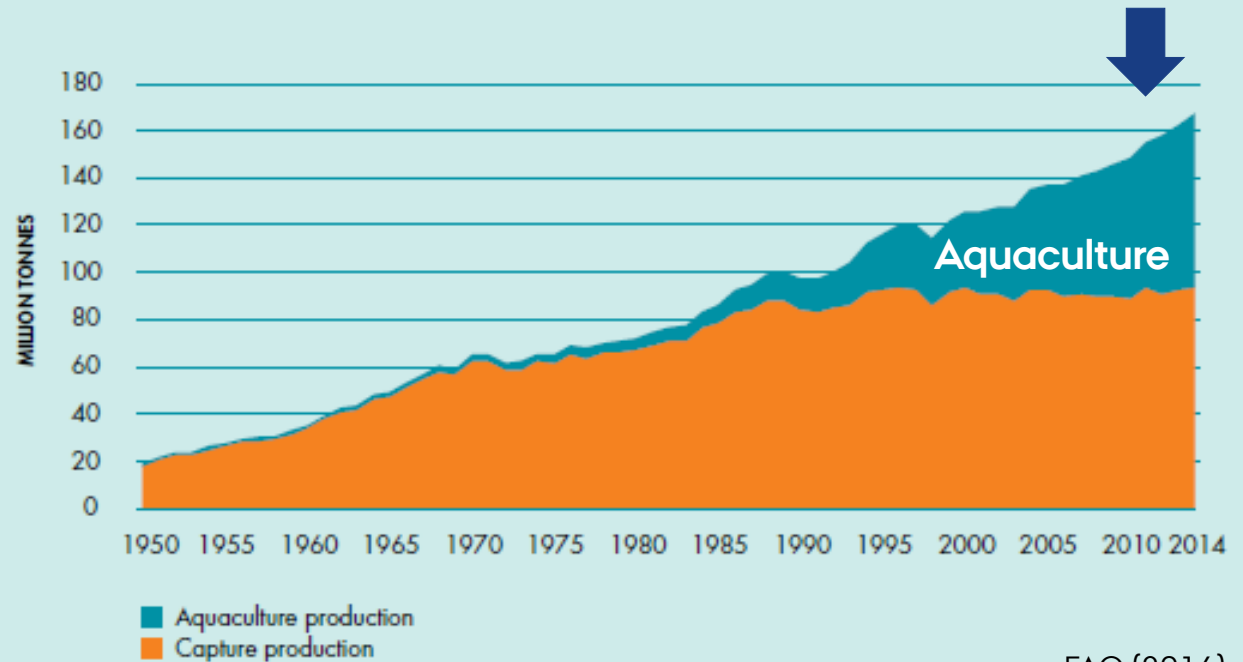
MARIJA BANOVIC

OCTOBER 18, 2017

AQUACULTURE WITH POTENTIAL TO FEED THE WORLD?

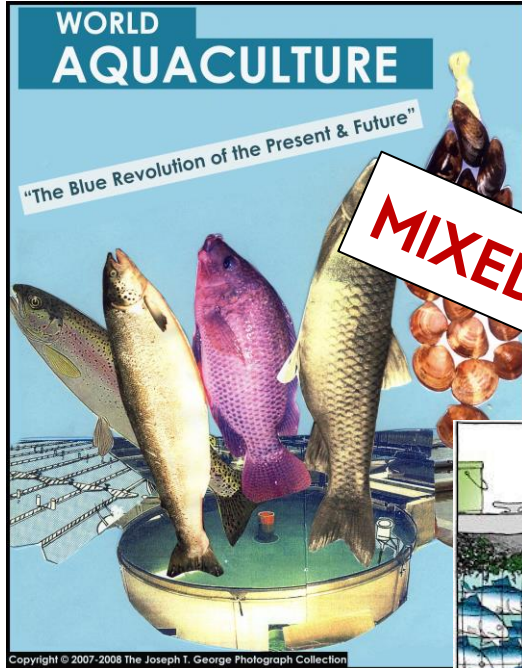


WORLD CAPTURE FISHERIES AND AQUACULTURE PRODUCTION

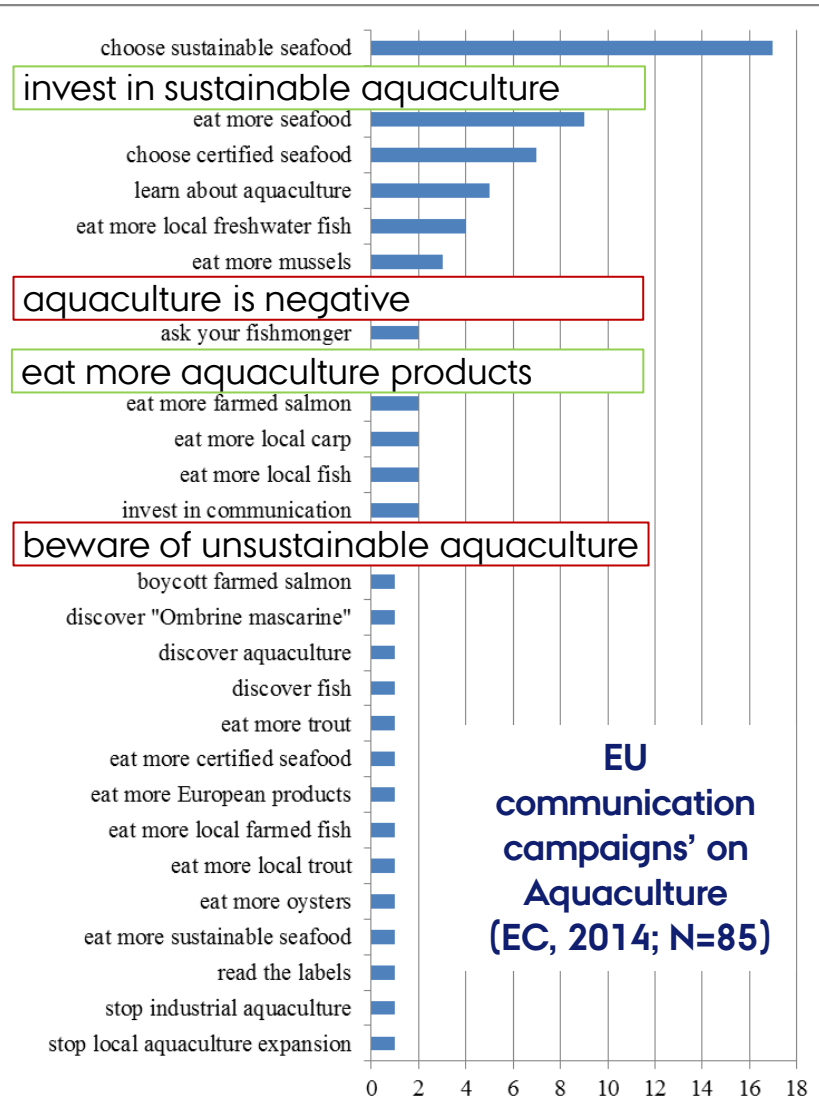


FAO (2016)

WHAT ABOUT THE CONSUMER?

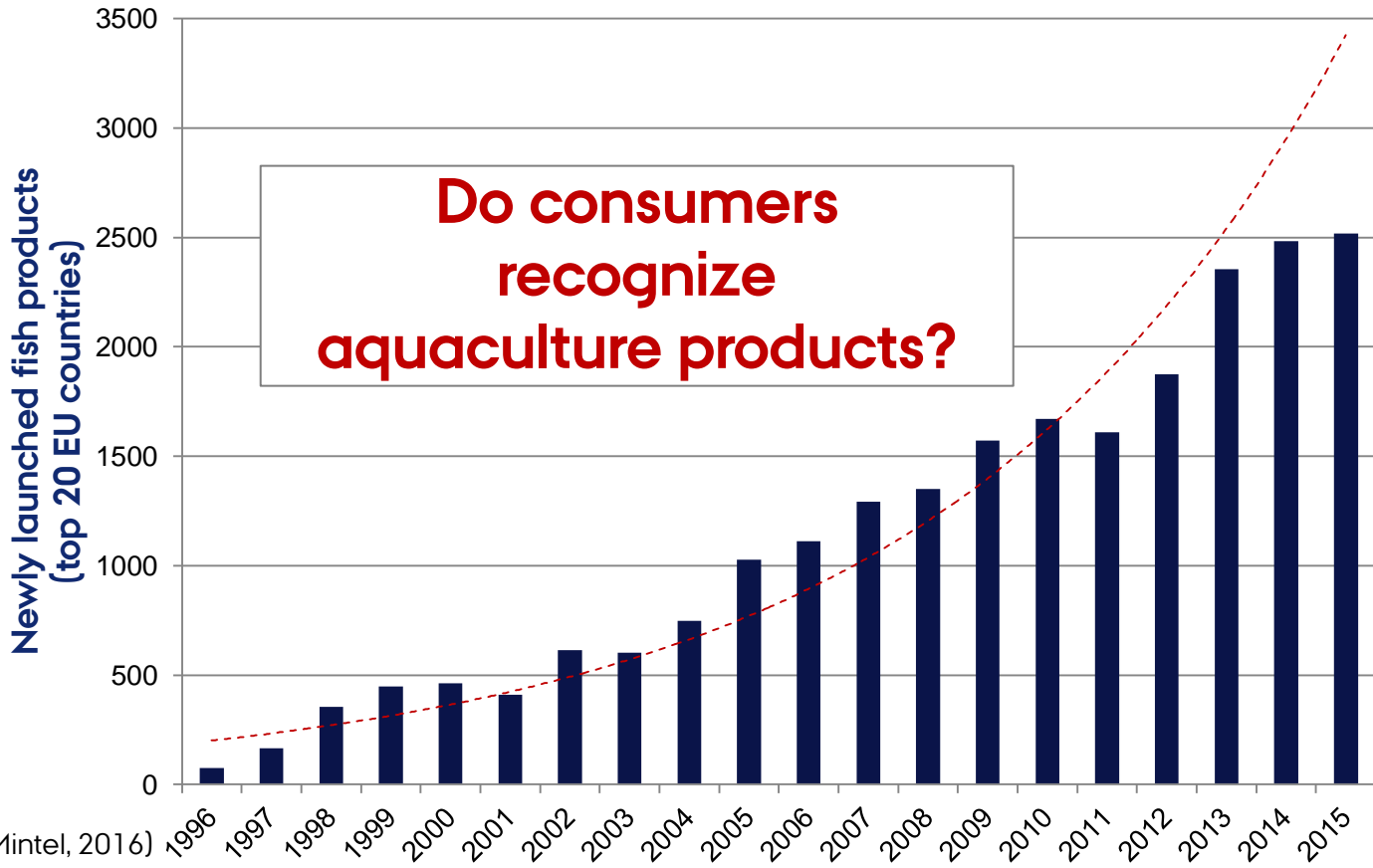


MIXED MESSAGES



EU communication campaigns' on Aquaculture (EC, 2014; N=85)

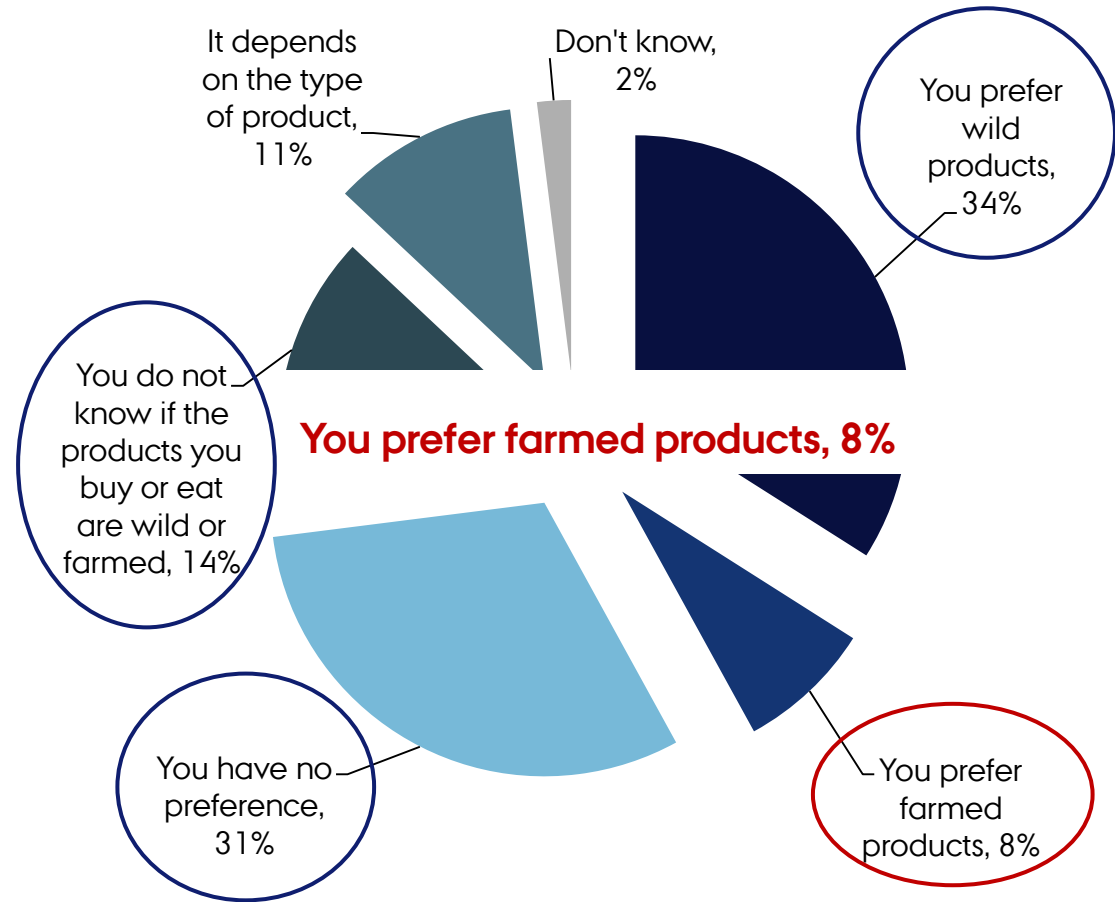
FISH TODAY: CONSUMERS FACING CHOICE OVERLOAD



AQUACULTURE PRODUCTS (IN)VISIBLE?



Adapted from © marketoonist.com



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

'FIELD OF DREAMS' VS TAILORING FISH?



- Under new common organisation of the markets (CMO) in fishery and aquaculture products (FAPs)

consumers play a pivotal role

- Aquaculture is on the stage in life when is already too mature and diverse to have a general approach to all its products

(Banovic et al., 2016, 2017; Diversify, D29.6 and D29.8)

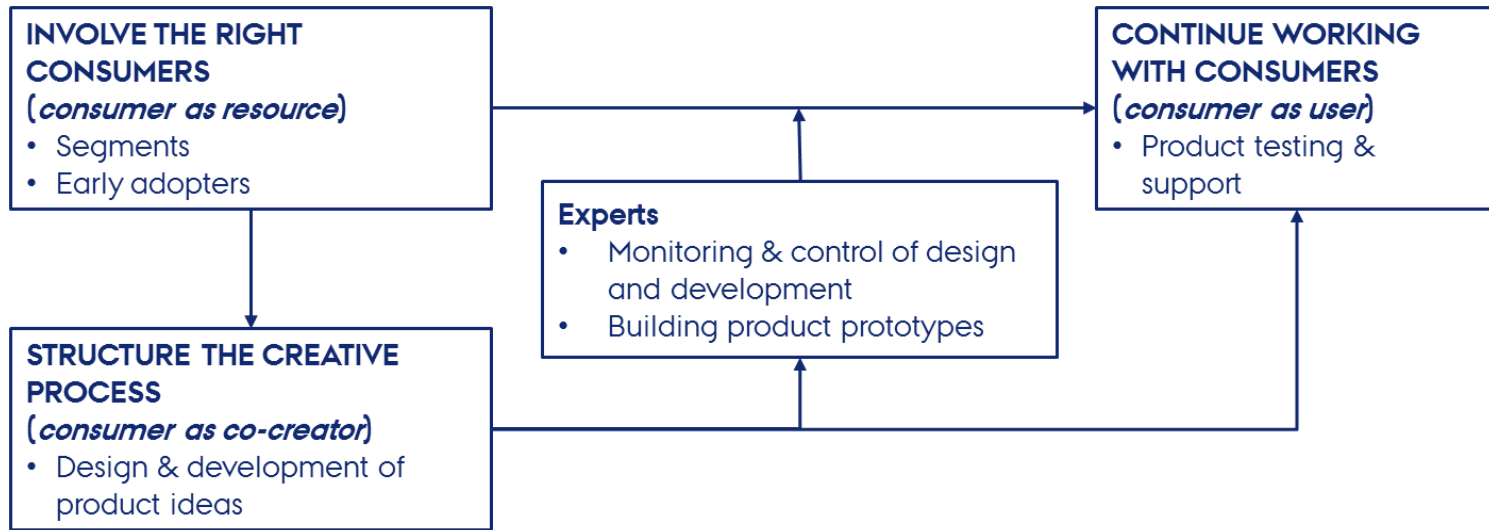


CONSUMER-DRIVEN PRODUCT IDEAS FROM DIVERSIFY



www.diversifyfish.eu

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



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

IT ALL STARTED WITH THE CONSUMER: CONSUMER AS CO-CREATOR OF NEW AQUACULTURE PRODUCTS

- ▶ Online survey (i.e. FR, GER, IT, SP & UK; N=2500) -> consumers segments



Early adopters



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

- ▶ Ten focus groups with early adopters (i.e. FR, GER, IT, SP & UK; N=60)
- ▶ 12 product ideas per country

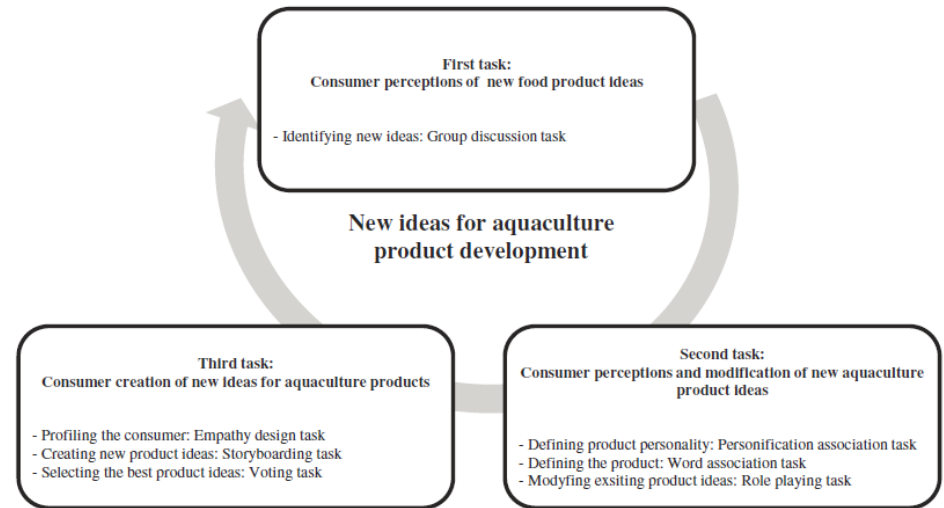


Fig. 1. Research framework.

(Banovic et al., 2016a,b; Reinders et al., 2016; D29.2)

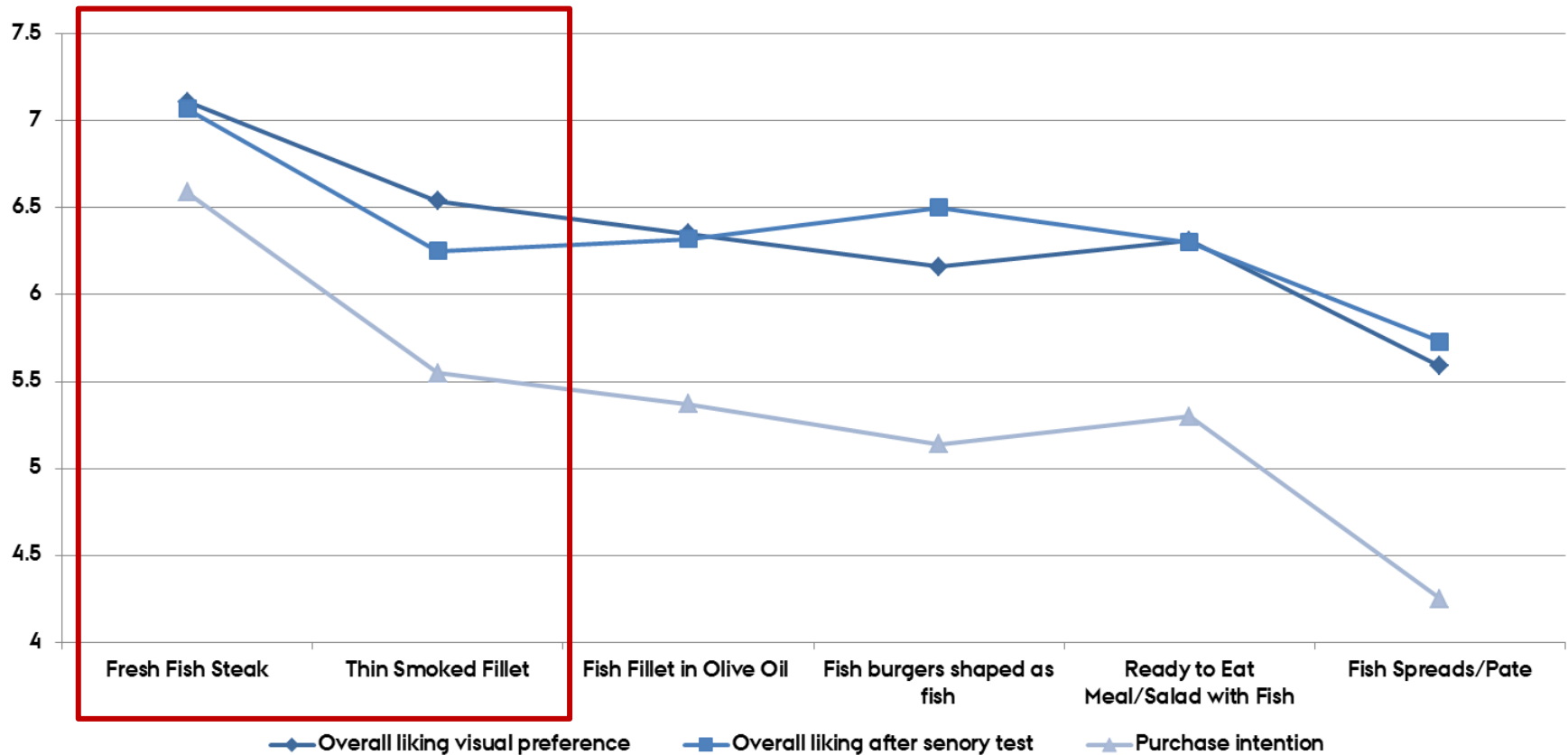
EXPERTS: PHYSICAL PRODUCT PROTOTYPES (I)

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)



(Diversify - D28.4, D29.4, CTAQUA, IRTA, HCMR)

CONSUMER: PHYSICAL PRODUCT PROTOTYPES (II) SENSORY PROFILING



(Diversify - D29.4, IRTA)

DEVELOPMENT OF THE PRODUCT MOCK: SELECTION OF ATTRIBUTES & ATTRIBUTE LEVELS

Low processed (LPP)



Medium processed (MPP)



Attribute	Attribute levels
Country of origin - COO	EU-made
	Own country-made
	None
Price	Average price
	+15% of average price
	+30% of average price
Nutrition claim	High in protein
	Omega 3
	None
Health claim	Improves cardiovascular function
	Improves brain function
	None
Responsible - Environmental	ASC logo
	None

THE STUDY

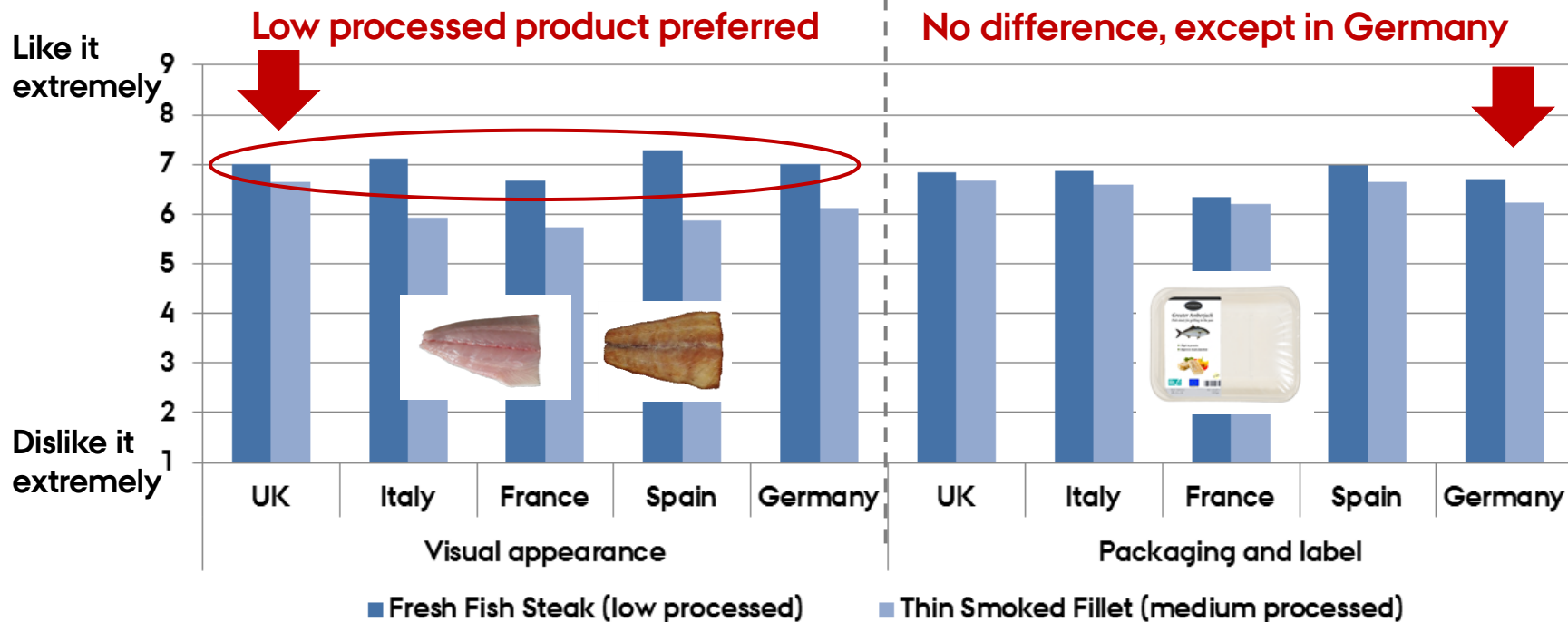
- ▶ **Online survey:** France, Germany, Italy, Spain, UK
- ▶ **N ~ 100 per product per country -> N ~ 200 /country, N ~ 1000/overall**
- ▶ **3⁴x2¹ orthogonal design** - 36 experimental sets partitioned into 12 choice sets of three
- ▶ **Example of the choice sets:**



▶ The questionnaire

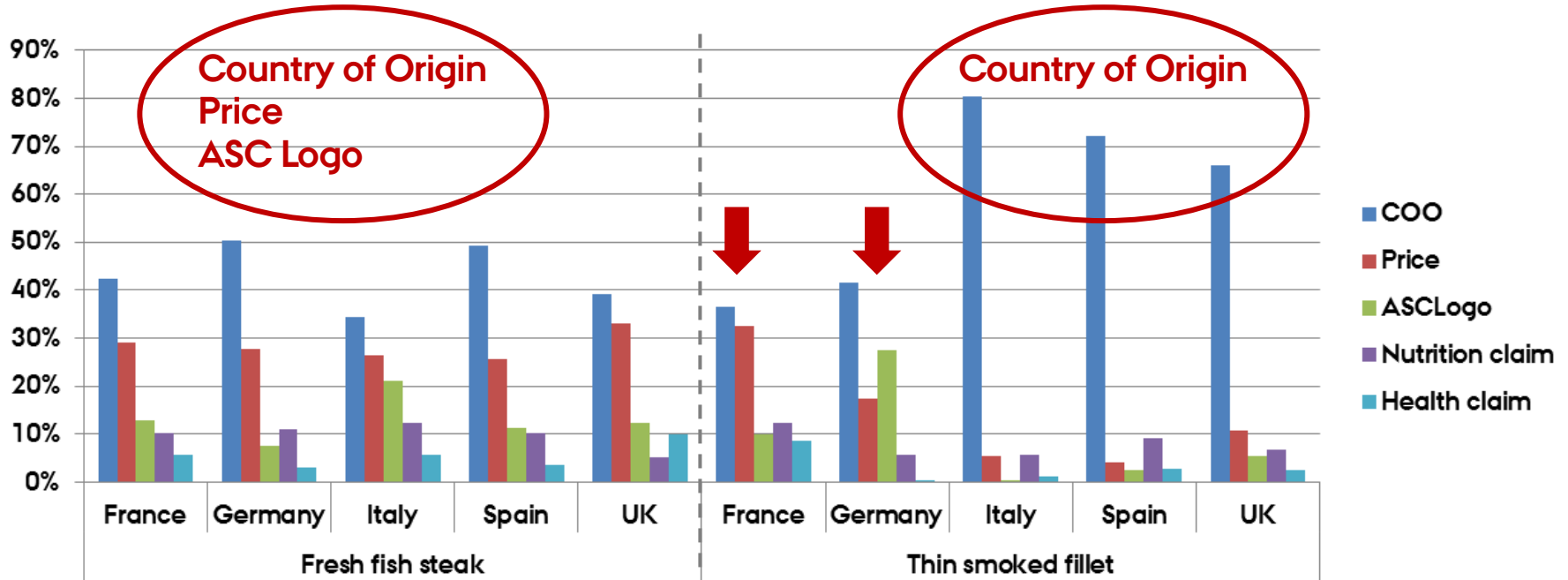
- Product design
- Intrinsic & expected quality
- Extrinsic & expected quality
- Fish species knowledge & liking
- Fish beliefs (wild vs farmed fish)
- Purchase & consumption behaviour
- Sociodemographics

RESULTS: INTRINSIC/ EXTRINSIC QUALITY AFTER VISUAL INSPECTION

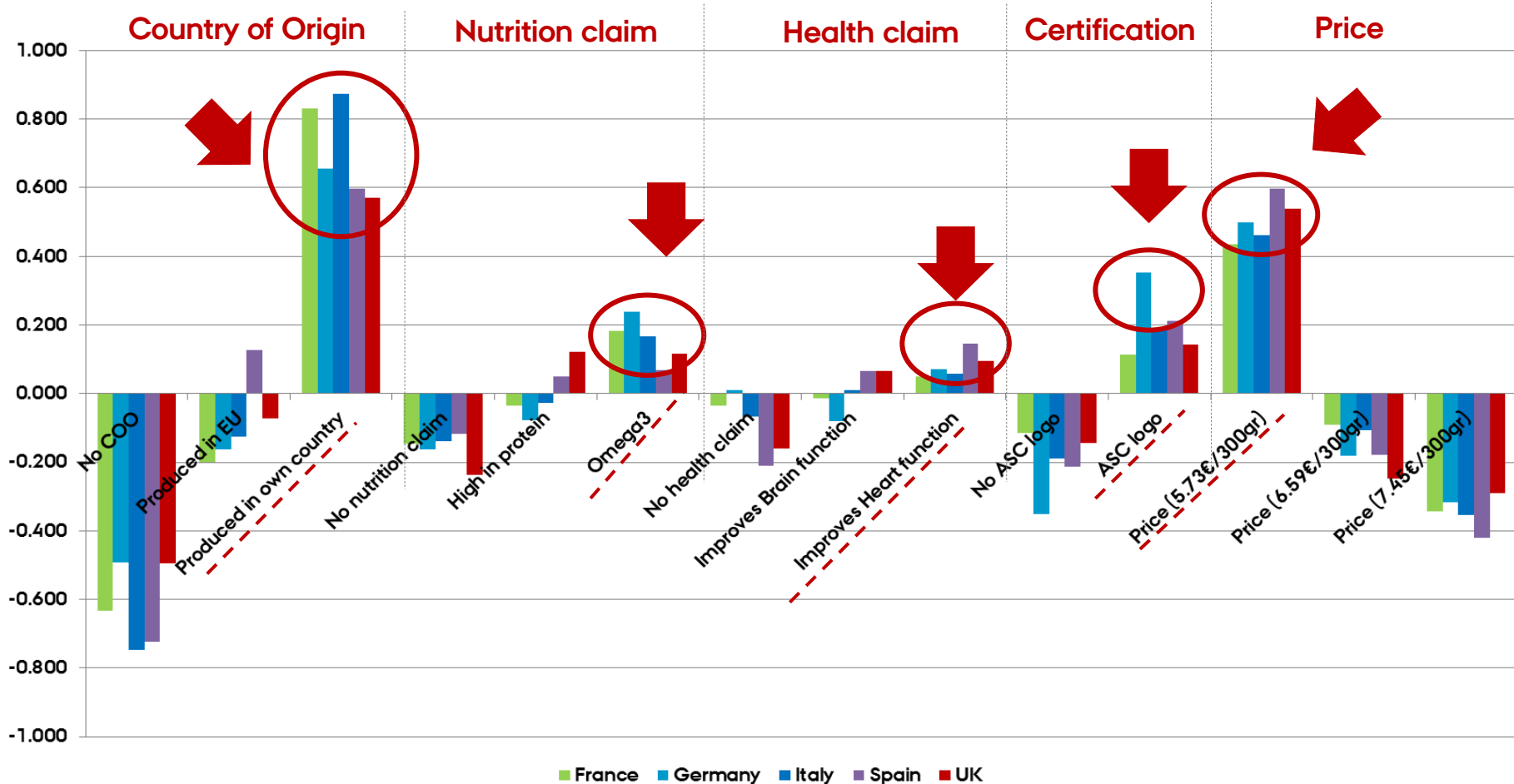


RESULTS: CHOICE EXPERIMENTS

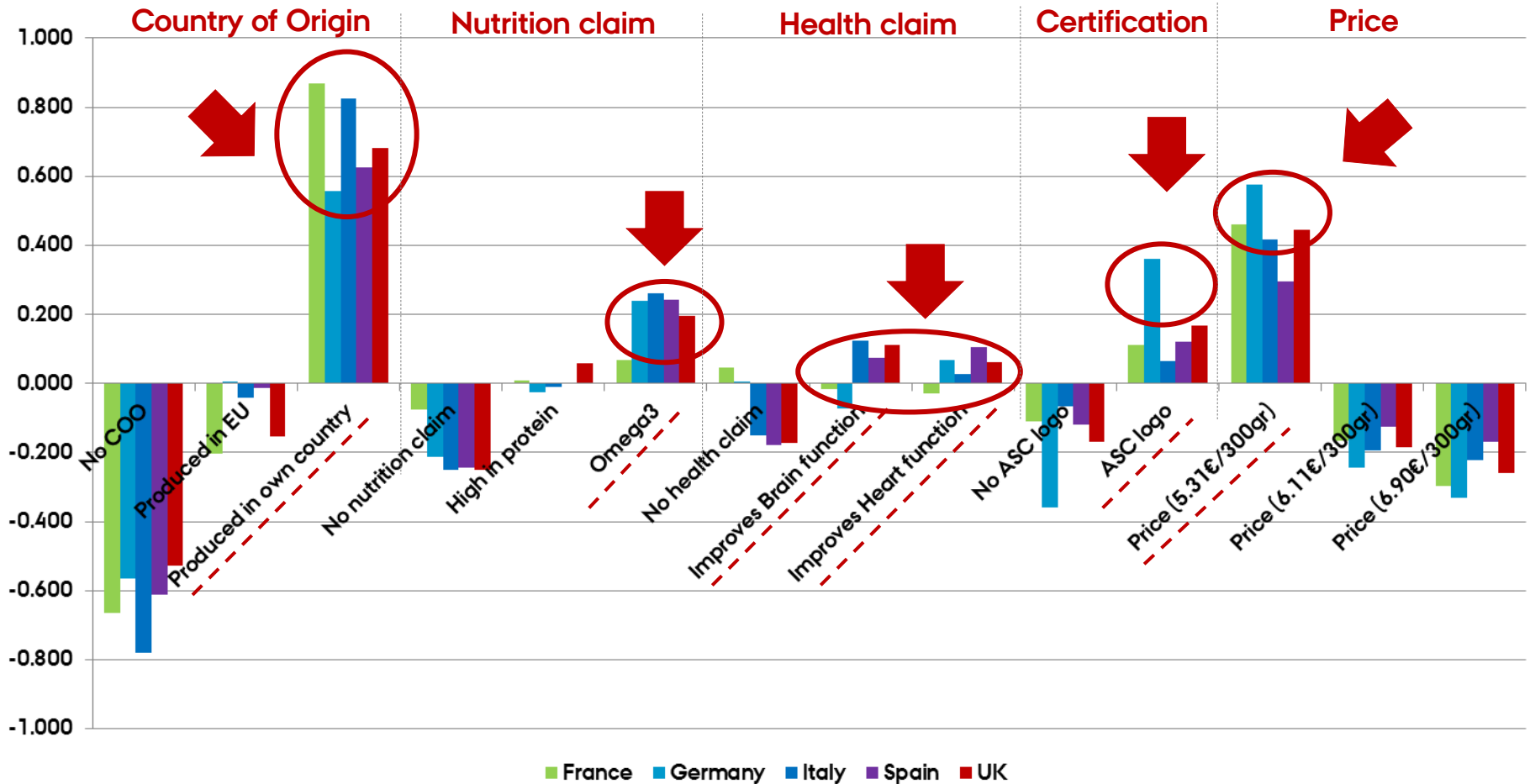
ATTRIBUTE IMPORTANCE



RESULTS: CHOICE EXPERIMENTS UTILITIES – LOW PROCESSED



RESULTS: CHOICE EXPERIMENTS UTILITIES – MEDIUM PROCESSED



CONCLUSIONS

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-boarder European level, similar pattern in consumer choice-drivers, i.e.
 - › COO & price come first, followed by quality certification (ASC Logo)
 - › 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 different products and countries
- ▶ **Results are country and product dependent...**
 - › COO important in MPP, claims more important in LPP
 - › in the UK, all attribute versions selected do add something to the product
 - › In GER ASC logo work well for both products



WHAT DID WE LEARN FROM DIVERSIFY?

- ▶ **Adapt product information to the product type** of highlight the most valuable benefits and attributes (e.g. ASC logo)
- ▶ **Less clutter** - convenience at the purchase point and at home - branding, storytelling, recipes essential
- ▶ **Associations to responsible consumption and health**
- ▶ **Facilitate product implementation** – communicate what consumer should do (‘where’, ‘when’ and ‘how’)



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



**THANK YOU
FOR
YOUR ATTENTION!**

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