



## Deliverable Report

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Deliverable Title	Report with results of focus groups with consumers and experts regarding ideas for new fish products.		
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**Objective:** The general objective of deliverable 28.1 is to explore and report new ideas through focus groups with consumers and experts with regard to the fish products resulting from the species under study in the focal markets (*i.e.*, UK, Germany, Spain, France and Italy). In this report, results of focus groups with consumers and experts regarding ideas for new products are presented. The report describes the methodology used, the buying factors, the selection criteria, the selection process and the quality expectations of fish and aquaculture products.

**Description:** The Deliverable D28.1 contains the following information: (1) the protocol describing the methodology used for consumer focus groups, (2) description of the results of the consumer focus groups and ideas collected, (3) protocol describing the questionnaire used in expert interviews, and (4) description of the results of the expert interviews. The final results from consumer focus groups (n=2 completed in each country) and expert interviews (*i.e.*, UK = 4, Spain = 2, Germany = 1, France = 3, and Italy = 3) are available for consideration for all partners participating within the DIVERSIFY consortium and the EU Scientific Officer upon request.



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## 1. Objective

The objective of this research was to explore and report new ideas through focus groups with consumers and experts with regard to the fish products resulting from the species under study in the focal markets (*i.e.*, UK, Germany, Spain, France and Italy). In this report, results of focus groups with consumers and experts regarding ideas for new products are presented. The report describes the methodology used, the buying factors, the selection criteria, the selection process and the quality expectations for fish and aquaculture products.

## 2. Protocol of consumer focus group discussion on exploring ideas for new fish species products

### 2.1. Method and research design

The objective of this protocol was to obtain qualitative information through a series of focus groups with consumers in selected countries (*i.e.*, UK, Germany, Spain, France and Italy) and generate input for new product development of farmed fish species. The choice for the countries was determined by the following characteristics: (i) largest EU markets for cultured fish (*i.e.*, Spain, France and Italy) and (ii) important growing EU markets for cultured fish (UK and Germany).

Two focus groups have been conducted per country (n=10 focus groups in total). In every country and in each group, participants were mixed, coming from both the '*involved traditionalists*' and the '*involved innovators*' psychographic segments. The '*involved innovators*' represented consumers who are very involved in and knowledgeable about fish products, but at the same time quite innovative, when it comes to new farmed fish species. They showed the highest perceived value and the lowest perceived costs in association with the new farmed fish species, as well as the highest expected outcomes in terms of satisfaction and trust. They were very open to new experiences with regard to fish products, but even more of new fish species, being highly aware of the environmental problem caused by overfishing and actually seeing the future in farmed fish production. On the other hand, even though the '*involved traditionalists*' were involved in and knowledgeable about the fish consumption, they saw it more as a 'cost' that this consumption might bring, being wary of safety issues and efforts to attain the proper fish products. Thus, this segment was much more conservative and reserved regarding the new experiences in fish products in general. However, they held the strongest positive beliefs regarding the farmed fish production, being also aware of its possibilities both in connection to the environment but also regarding the hedonic aspects of fish consumption. But, more than that, the involved traditionalist would prefer farmed fish to wild fish, as the former is better handled, safer and tastier than wild fish. Furthermore, not only do they see wild fish as endangered species, but also as living organisms which might suffer pollution, containing heavy metals and parasites. Hence, even though they are conservative towards new fish product ideas, they could also be a segment worth looking into due to its positive visions of farmed fish production.

The conducted focus groups were of a semi-structured nature, allowing the moderator of the discussion and the participants of the group to raise issues unknown or other than those already assigned in the agenda. Via this qualitative methodology, the researcher/moderator was allowed to ask the participants about the comparisons between their views and experiences, facilitating a better understanding of why the participants agree or disagree.

The moderator used this protocol (*i.e.* discussion guide) to ensure consistency and uniformity of the process in both focus groups. Moreover, whenever the discussion got off-track or whenever it was insufficiently covered, the moderator needed to consult the protocol. These guidelines also enabled the comparison of results across the focus groups on the topics discussed.



The focus groups proceeded in three steps:

- (1) Explore consumers' personal experiences, preferences, attitudes, and perceptions regarding new food products in general (10 minutes);
- (2) Explore consumers' personal experiences, preferences, attitudes, and perceptions in relation to new fish products (with emphasis on the species under study) (20-30 minutes); and
- (3) Explore consumers' creative ideas for new farmed fish species by using creative techniques (*i.e.*, empathy map and brainstorming) (60-80 minutes).

By achieving these steps, this research provides a list of ideas for new product development that will be further tested in the experimental and quantitative research that touch upon the two main areas of the work, namely related to development and selection of new product concepts from selected fish species, and evaluation and optimization of newly developed fish products. Further, this research provides up to 3 new product ideas for each of the new fish species. Thus, in total fifteen feasible ideas were generated from consumer focus groups in selected countries (*i.e.*, UK, Germany, Spain, France and Italy) from which 8 were chosen in order to move from the idea to the tangible product.

#### 2.1.1. Participants and recruitment

Each semi-structured focus groups were comprised of 6 participants, 3 from each of the two psychographic segments explained above. Both focus groups were internally heterogeneous (but externally comparable) in terms of their socio-demographic profile, consisting of informants of different age, educational and general socio-economic background for eliciting opinions and points of views on the subject as wide as possible.

The participants were screened by means of a set of criteria (see Appendix 1). Hence, participants met next criteria:

- a) The psychographic profile of each of the two segments (*i.e.*, '*involved traditionalists*' and '*involved innovators*') that is recruited per country respects the criteria for these psychographic segments mentioned in previous section 2.1;
- b) Consume (farmed and/or wild) fish according to the prevailing frequencies in their respective segments per country (refer to behavioural profile tables of the Report 29.2); and
- c) Be variant in terms of their socio-demographic profile characteristics, *i.e.*, age (between 30 and 60 years) and gender (3 male and 3 female participants in each group). Finally, participants have bought (farmed and/or wild) fish (or seafood) at least once during the month before the interviews, as well as being farmed/wild fish consumers. Participants are also main decision makers about grocery/food shopping or share this responsibility equally with another member of their household.

#### 2.1.2. Practicalities

The focus groups were conducted during the second half of January 2015. Project partner 38 (HRH) undertook the task of recruiting participants and conducting the interviews in every country either directly or through local collaborators. Estimated interview time was between 90' and 120'.

Focus group interviews were recorded and transcribed for subsequent data analysis according to standard procedures. Data analysis and interpretation of focus group data were undertaken with the rigorous care using standard methods and was determined by the research questions related to the new product development of farmed fish species in each of the selected countries (*i.e.*, UK, Germany, Spain, France and Italy). ~~More specifically, first opinions of new food product in general have been analysed, followed by the~~



analyses of respondents' views on new fish products and interpretation of new ideas for the development of new products from farmed fish species.

## 2.2. Discussion guide

The discussion guide was developed to provide an input to the deliverable 28.1 and explore and report on new ideas with consumers with regard to the fish products resulting from the species under study in the focal markets (*i.e.*, UK, Germany, Spain, France and Italy).

The discussion guide comprises three parts, reflecting the steps described above. More specifically:

### *Stage1: Exploration of new food products (expected time duration: 10')*

In stage 1, informants are prompted to discuss about their personal experiences, preferences, attitudes and perceptions towards new food products in general. They are requested to express their opinion on a number of themes (posed to them orally by the interviewer in the 'free' flow of the discussion) accordingly, such as (indicatively):

*Can you give examples of new food products that you bought lately?*

*What specific features of the new food product impress/disappoint you?*

*Use free words to describe most positive experience you had with the new food product?*

### *Stage2: Exploration of new fish products (expected time duration: 20'-30')*

In stage 2, informants are invited to explore new fish products and re-design them. This stage will go through three steps: a) defining the product – personification associations; b) free association task, and c) pictures of new fish products – role playing.

#### *a) Defining the product – personification associations*

In the first part of this step, a simple exercise with participants will be undertaken that allows for defining a fish product by associating it with other products or living beings. These personification associations will allow participants to give human characteristics to fish products. Examples of questions are listed below:

*If fish were a person, what would he or she look like?*

*If this fish could talk, what would it say to you?*

*How would this fish feel about you?*

*If you were a fish, which fish would you be?*

*How would you describe yourself in this role?*

#### *b) Free association task*

In the second part of this step, informants were more involved in the process by being prompted to undertake a free association task. Participants are invited to say what comes up to their mind with regards to:

*When you think of new fish products, what is the first thing that comes to mind?*

*When you see new fish species, what image comes to mind?*



Not only that these questions trigger a participants' interest, but they also generate valuable insight on how informants perceive, interpret, and associate new fish products. The free association task is made in an unstructured way and in a non-judgmental atmosphere, following pathways defined by emotional motivations, rather than rational intentions, defying in that way participants' anxiety.

c) *Pictures of new fish products – role playing*

Finally, in the third part of this stage informants were provided with concrete examples aided by pictorial material of new fish products that can come out<sup>1</sup>. Informants were thus invited to express their general opinion on these products. Further, they were also prompted to some role-playing and to discuss what features would they add/remove or what features they would emphasize to add value to these products and make them more convenient, healthy, among other things. Examples of questions are listed below:

*If you were the product manager, what specific features of the new fish product would you add/remove?*

*If you were the product manager, what would you do to improve the new fish product?*

*If you were the creative director, what would your ad say?*

*If you were buying this product, what would you like to see to make up your mind?*

*Stage3. Exploration of new creative ideas for fish products (expected time duration: 60'-90')*

The goal of this stage is to create new ideas for fish products by gaining the deeper understanding of the consumer and digging more deeply into consumer perceptions. In this step, brainstorming has been aided with an empathy map (**Fig. 1**).

This stage will pass through the following steps:

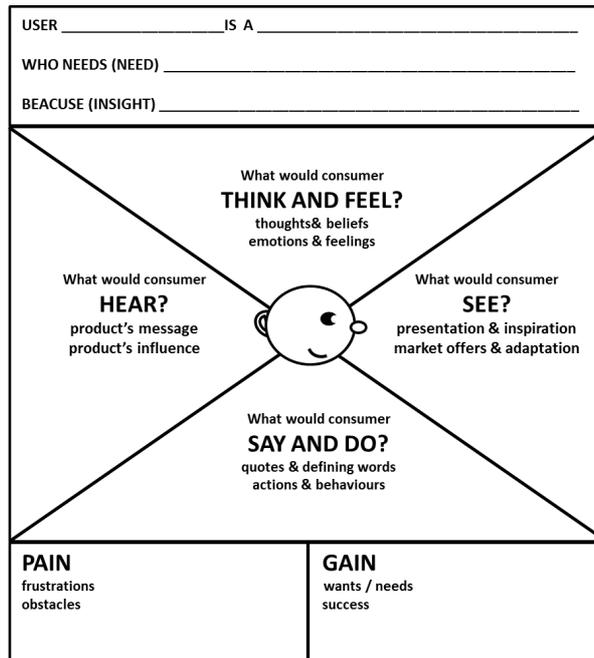
- a) *Brainstorming with empathy map (20'-30')*,
- b) *Creating new ideas (15'-30') and building presentation for a new idea (10'-15')*,
- c) *Presentations (2' each group) and voting for best ideas (15'-20')*
- a) *Brainstorming with empathy map (20'-30')*,

In the first part of the brainstorming session, the interviewer explained the protocol to the participants making sure that the brainstorming sequence is well understood. Participants in each focus group are asked to form 3 groups of two participants (one from each psychographic segment). Participants are divided into groups in order to get the best results by combining group brainstorming. By dividing participants into groups, people can focus on the issue without interruption. In this way a number of ideas that can be generated is maximized and team bonding achieved. Empathy map diagram allowed for keeping the participants focused on the problem. During the session, the interviewer made sure that all ideas are recorded and checked with each group every 5 minutes that the session is going in the right direction.

The protocol for each group was the same. Participants were asked to define their point of view on *who* in their opinion could be a consumer of new fish products (that have been presented in the previous steps). Thus, pictures of the fish products shown earlier should be shown again at this stage. Brainstorming session proceeded by using an empathy map that was already printed out or drawn on the whiteboard (**Fig. 1**).

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<sup>1</sup>Six pictures of new fish products have been selected and provided to the participants at the interview. Short description of each product has been also provided with each picture.



**Figure 1.** Empathy map.

By using the diagram in **Figure 1**, participants were highly encouraged to give their consumer a name and some demographic characteristics, such as occupation, marital status, etc. Furthermore, they were asked to define a consumer *need* to consume fish products and give an *insight* or the main reason behind consuming fish products (e.g., Sarah is a nurse and mother of two, boy and girl; *who needs* fresh fish to feed the kids and to serve it for a special occasion; *because* she wants a tasty and quality meal with lower fat content that gives brainy food for her kids, watches her line and is a quality meal for family gatherings). Then, by using the empathy map, participants were compelled to explain what would this consumer - *see* - *hear* - *think & feel* - *say & do* - regarding the product he/she *needs* and what could be *pains* and *gains* of this process.

Participants were given post-it notes and markers to write and draw their ideas and thoughts regarding the different questions and place them accordingly to the empathy map diagram. Participants were encouraged to use quotes, keywords and drawings that tell a story about each idea. Each group worked separately on their ideas (this part lasted up to 30 minutes). Participants were instructed to write and draw ideas on post-it notes and clip as many as possible on the diagram. Sample questions for the interviewer to help brainstorming are presented below:

**Table 1.** Questions for the brainstorming

EMAPTHY MAP	Questions for brainstorming
<u>SEE</u> Describe what would the consumer like to see in the environment	<i>Why consumer would like to see this product or how it would look like?</i> <i>Why would this product be different from others on the market or what other product on the market could be an inspiration?</i> <i>How would you combine, modify or adapt this product with existing products to create a new one?</i>
<u>HEAR</u> Describe how the environment might influence the consumer	<i>Why would this product influence the consumer?</i> <i>What could be this product message?</i> <i>What could consumer's friends/family and others say?</i>
<u>THINK &amp; FEEL</u> Describe what goes in the consumer mind, deeper meaning of consumer needs, thoughts and beliefs, feelings and emotions, with regards to this product	<i>Why would this product be really important to the consumer (what consumer might not say publicly)?</i> <i>What could consumer think/feel about this product?</i> <i>Imagine consumer's feeling and emotions, dreams and aspirations.</i> <i>What could move/keep consumer with regards to this product?</i>
<u>SAY &amp; DO</u> Imagine what the consumer might really say or behave regarding this products	<i>What could be consumer's real attitude towards the product?</i> <i>What could consumer be telling others?</i> <i>What could be potential conflicts between what a consumer might say and what consumer may truly think or feel?</i>
<u>PAIN</u>	<i>Why would be consumer frustrated about this product?</i> <i>What obstacles may stand between buying the product and needs to achieve?</i> <i>What risks might consumer fear taking?</i>
<u>GAIN</u>	<i>Why would consumer truly want or need this product?</i> <i>What could be the measure of success for this product?</i> <i>What could be a good strategy for consumer to buy this product?</i>

b) *Creating new ideas (15'-30') and building presentation for a new idea (10'-15'),*

In the second part of the creative session, the interviewer asked all groups to continue with brainstorming by asking themselves a simple question: "How might we...?" (e.g., *How might we help Sarah to get the fish product that is fresh, low fat, tasty and that is a quality meal choice for her, her family and friends?*). After the first part of the brainstorming session is completed, each group is asked to choose idea(s) that wants to carry forward to presentation and evaluation. Ideas were presented by using another board or a large paper. The interviewer encouraged each group to *tell* or *draw* or *make* a story, song or similar (e.g., cartoon) about their idea(s) and emphasise 3 strengths and 3 weaknesses for each selected idea(s). Each group have built their ideas by simple brainstorming and board game looking at the empathy map and post-it notes and adding or rearranging them as a story. Participants were encouraged to look for ideas, drawings and thoughts on the empathy map that they can link to the challenge of 'how might we', try to force relationships and free-associations while recording each idea arrangement on the board or a large paper.



The interviewer made sure that no one criticizes or evaluates ideas during the building phase, as criticism can introduce risks of putting off some ideas and can cripple creativity and free running of the brainstorming session. The interviewer encouraged participants to talk about one idea at the time, inspiring wild and provocative ideas (from solidly practical to wildly impractical ones). The interviewer ensured that participants stayed on topic and built on existing ideas. Building of the idea presentation lasted up to 45 minutes. First 20-30 minutes were used for ideas creation and last 10-15 minutes were used for presentation building. The participants were informed at the beginning of this session that they would have to present an idea or ideas when board game and idea(s) is completed. As previously mentioned, presentations varied and were presented in various ways to each group's preference (e.g., cartoon on a large paper).

*c) Presentations (2' each group) and voting for best ideas (15'-20')*

In the third part, each group presented their ideas in a chosen way (e.g., story, drawing, cartoon, song). Separate presentation lasted no longer than 2 minutes. Thus, each group presented their ideas at the end of the creative session. After each group presentation was completed, everyone voted for the *best* and *worst* ideas. Besides voting, participants were encouraged by the interviewer to comment and add to existing ideas.

This final section serves for producing rankings for the individual ideas/offerings, along with conclusions. First of all, each respondent rated the concept using a marking system. Each had 12 points to award; they could stick them all onto one concept/fish product or distribute them according to the personal preference. All the points must be awarded in order to allow comparison. Besides ranking, participants were encouraged by the moderator to comment and add to the best existing ideas.



### 3. Description of the results from the consumer focus groups and ideas collected per country

This section describes the data collected from consumer focus groups in each of the five countries, UK, Germany, Spain, France and Italy, as well as the new product ideas that were created.

#### 3.1. Germany

##### 3.1.1. Overall summary

Generally, respondents seemed to be more oriented toward convenience, practical products that they can prepare in a quick and easy manner. These products have to be appealing to families, working mothers and fathers that do not have a lot of time. Furthermore, respondents agree that they would prefer to be able to have varying cooking choices for preparing the product. Respondents prefer wild-caught fish, but on the other hand they are very environmentally conscious and aware of overfishing issues. The importance of environment and sustainability are the themes that are often mentioned, and respondents are quite aware of the major challenges of environmental sustainability and need to maintain the environment for the benefit of all. Thus, they would like to have an alternative to wild-caught fish and are open to the farmed fish species.

The pictures of fish products had quite an impact on the respondents, who were very concerned with visual appearance of the fish products and packaging. Respondents emphasized that packaging should be visible with attractive pictures, information on production and transport, and preparation methods. Additional leaflet with recipes would be seen positively. However, packaging should allow product to be seen. Product appearance must be unaltered, as much as possible, like fish fillets with no additives, preferably without coating (*i.e.*, potatoes, bread crumbs) and extra sauces, marinades. Nevertheless, respondents would like to have an option of the already prepared marinade, sauces, herbs or vegetables in a separate sachet that they could use if they want. Respondents were also very concerned of the taste of the new fish products that do not deliver its promises. Overall, due to the health and nutrition issues respondents prefer to have more unprocessed fish products.

The most accepted creative product idea that was suggested and accepted by the respondents was the fish fillet in a cooking bag or on a plate that can be popped in the oven or on a grill. Sliding packaging with attractive pictures was suggested as an addition, and the best solution was the one where both product and packaging could be visible with additional information on fish production and cooking methods. It also should be environmentally sustainable with recyclable material. This product was suggested to be deep frozen so that it could be prepared when needed.

#### Key points

- *Appearance*
- *Package*
- *Convenience*
- *Taste*
- *Health*
- *Nutrition*
- *Recipes*



- *Environmentally conscious*
- *Innovative*
- *Preservation*
- *Purchase point*
- *Superfoods*
- *No bones*
- *Fish species*

### 3.1.2. New food products in general

*Q: Can you give example of new food products that you bought lately?*

#### Key points

- Convenience food
  - fish in a cooking bag
  - fish in a plastic wrap
  - punjabi rolls
  - vegetarian ham slices
  - pizza burgers
- Innovative food
  - chips machine
  - coffee in a capsule
  - vitamin water
  - protein bread
- Supper foods that you can add
  - goji berries
  - maca powder
  - chia seeds
- Health
  - no additives
  - no carbohydrates
- Taste
- Nutrition
  - energy



### Selected responses

#### *Positive:*

- "Fish in a cooking bag, it is convenient fish dish, but in a new way, ..., and if you working sometimes you want things to be quicker, so it's very practical."
- "Plastic wrapped fish that you can cook even in the microwave, convenience food."
- "Punjabi rolls, with vegetables and jasmine rice, deep frozen. It delivered its promises."
- "Vegetarian ham slices its tastes delicious, made of protein and tasted like ham."
- "All these super foods, like goji berries or maca powder... chia seeds, ..., that is the trend, things that are health focused that built your muscles or whatever."

#### *Negative:*

- "Pizza burgers, ..., convenient food, ..., but I wouldn't eat it again."
- "Chips machine, innovative product, but not nice you know how chips are made."
- "Coffee locked in the capsule, really wrong."
- "Vitamin water, enriched with vitamins, but was not convinced, tastes like nothing."
- "Protein bread to save carbohydrates, but its soggy, ..., the taste and texture wrong."

### 3.1.3. Exploration of new fish products

#### a) Defining the product – personification associations

*Q: If fish would be a person, what would he or she look like, behave...say and do...*

#### Key points

- Flexible
    - mobile
    - fast
    - playful
    - vivacious
    - slippery (+)
  - Camouflage ability
    - elegant
    - colorful
    - undistracted
    - unbothered
  - Aquarius star sign
-



- one with themselves
- Self-preserving
  - clever
  - reserved
  - calm
  - balanced
  - slow
- Fresh
- Unapproachable
  - slippery (-)
  - cold
  - slimy

#### Selected responses

##### *Positive:*

- "Very flexible and mobile, elegant, physically, ... and visually colorful."
- "... camouflage themselves, but you have this idea that each of them has their own thing, ..., undistracted, unbothered."
- "I associate them with star sign of Aquarius, they are very interesting people."
- "Quite reserved, calm, balanced, ... I imagine a river following the straight path and not going left or right or going everywhere else, following their path calmly."
- "Do not forget piranhas, there are lot of them walking out there, they would be with great sense of self preservation."
- "Fresh person, someone who comes and say: "Hi it's me.", and you feel fresh, you feel positive."

##### *Negative:*

- "As a person would be cold and slimy, slippery, not terribly likeably, unapproachable."



b) Free association task

*Q: What comes to mind when you think about new fish products?*

Key points

- *Convenience fish products*
  - fish in a cooking bag
  - sealed fillets
  - ready done
  - practical
- *New fish products*
  - giant fish fingers
  - salmon Carpaccio
  - fish and chips
- *Preservation*
  - deep frozen
  - chilled
- *Package*
  - visible
  - attractive
  - pictures
  - information
- *Product appearance*
  - visible
  - attractive
- *Taste*
- *Health*

Selected responses

*Positive:*

- "Fish in a cooking bag." ; " Well sealed, visible and frozen - good for use."
- "...it's like original Carpaccio, but with parmesan and olive and lemon sauce and it's ready done, but it comes separate. It's delicious, and comes in chillers shelves."



- "They do not say directly in the advertising that it is healthier, but it comes through subconsciously."

*Negative:*

- "Fish & chips", ... you can fry them or bake them in the oven, ... I did not like it."

*Q: When you see new fish species, what images comes to mind?*

Key points

- *No bones*
- *Fish species*
  - pangasius
  - loup de mer
  - tilapia
  - red snapper
- *Environmentally conscious*
  - overfishing
  - fish production
  - farmed fish
- *Taste*

Selected responses

*Positive:*

- "New fish had to have very few bones, I simply hate it when fish has lots of bones."
- "Loup de mer or pangasius, has been in trend for some time now."
- "Tilapia, ... it's like loup de mer, silver-white and does not have any bones which was quite practical and it had a great taste."

*Negative:*

- "Basically we should not eat fish at all, because everything is over fished, but the question is where it is produced."



### 3.1.4. Pictures of new fish products

#### 1. Picture - Fish (back) fillets



Comment: Generally respondents preferred this slide to others, as these products looked more natural.

#### Key points

- *Appearance*
  - unadulterated
  - unprocessed
- *Purchase point*
  - fish counter
  - freezer
- *Package*
  - new
  - product visible
  - vacuum sealed

#### Selected responses

##### *Positive:*

- "It looks good and looks unadulterated, unprocessed and not so industrialized."
- "I would probably like to find this at the fish counter, if it is vacuum sealed."
- "I would expect to find this in the freezer."
- "As a packaging format it is relatively new."
- "It is good that the packaging is see-through and it is not covered with labels or with potatoes or other things that you could eat, I need to be able to see my product."

##### *Negative:*

- "It may not be possibly technically to change the package, but when you have a fish in the plastic it always looks nasty when it gets fluid in it."
- "If it was on the fresh shelves, it would be, no sorry, disgusting."



## 2. Picture - Octopus and shrimps for Carpaccio



Comment: Generally respondents did not like this slide, due to the package and appearance.

### Key points

- *Appearance*
- *Taste*
- *Package*
  - too compressed

### Selected responses

#### *Positive:*

- "Appetizing looks like bottom left one or right one (flower like), not one in the middle, but I would not eat it."

#### *Negative:*

- "Does not look at all appetizing, ...,it looks even worse on the plate."
- "It is different with salmon Carpaccio, it is salmon, salmon comes in thin slices and looks very aesthetic, but shrimps are little creatures,..., and it is very disrespectful, poor little shrimps died to make this, it is really sad."
- "My association is that looks like pigs head."
- "...looks like a bloody sausage as well."
- "The fact that the packaging is so compressed, I would not eat it."



### 3. Picture - Fish hamburgers and sausages



Comment: Generally respondents did not like this slide, as products are too processed.

#### Key points

- *Convenience*
- *Taste*
- *Health*
  - too processed
- *Appearance*
  - unrecognizable

#### Selected responses

##### *Positive:*

- "That's fun, I would try fish sausages, to barbeque in the summer,..., I know sausages are not healthy, ... but for a barbeque occasionally, but fish hamburgers I think not."
- "I made once fish cake with Jamie Oliver recipe and it was delicious, with different species of fish in a hamburger format and it was good, I found that more appealing than the sausages."

##### *Negative:*

- "If you knew how sausages and politics are made, you would not sleep again!"
- "Fish cakes are completely no go, as I do not know what is in them, it is OK if I make them myself."
- "When it is processed and unrecognizable, it's not my cup of tea."



*Q: What would you change about these products?*

Key points

- Appearance
  - shape
- Preparation
  - made by user

Selected responses

- "I would like to see the fish, fish is attractive, it is not an ugly format, I would like to be able to recognize its natural shape, because it busts my appetite."
- "It would be OK, if I made it myself."



#### 4. Picture - Salmon Fillet



Comment: Generally this was second preferred slide after fish fillet, as this product looked convenient, tasty for special occasions.

#### Key points

- *Convenience*
  - saving time
- *Appearance*
  - appealing
- Taste
- Special occasions

#### Selected responses

##### *Positive:*

- "Does look appealing, fish looks well cooked,..., when you do not have time you could just pop this in the oven and cook the rice, sometimes I am lazy."
- "Definitely looks delicious, looks good."
- "It's not totally new, but it seems to have spinach and bit feta cheese on it, and then some nice pastry around it, for special occasions, looks very good."

##### *Negative:*

- "Convenient food, like frozen fish with the topping, wouldn't have it, too much too much preservatives in there."



5. Picture - Snacks: dried fish fillet, fried cod skin, crunchy surimi, and fish sticks



Comment: Generally respondents did not like this slide, although respondents would reconsider if colour and shape changed and dips added with the product.

Key points

- *Appearance*
- *Taste*
- *Nutrition*
  - proteins

Selected responses

*Positive:*

- "Interesting, it looks like crisps, I know these from past,..., my grandpa would chew it, to get some kind of nutrients and always tasted very good."
- "I would like to try cod pieces, because they look appealing,... would eat them instead of crisps, at work in between, if you need proteins."
- "I would definitely try those (fried cod skin) as they remind me of crisps you try in Asian restaurants."

*Negative:*

- "This doesn't go really well with fish."
- "Oh that's disgusting, dry fish fillet, do not have a cat, but would give this to a cat."
- "First sight thought these are grasshoppers, no thank you...did not like the shape of fish fillet."

*Q: What would you change about these products?*

Key points

- *Appearance*
    - color
-



- shape
- *Preparation method*
  - dips

#### Selected responses

##### *Positive:*

- "Maybe colored them with paprika, they need color."
- "Clear shape, needs to be something straight, more appetizing."
- "Offer them with lots of different dips, like garlic, sauce tartar, dip them in and taste."



## 6. Picture - Octopus and seafood salad



Octopus in a natural liquid



Octopus in oil



Cooked, vacuum-packed octopus



Sea-food salad, in natural juice

Comment: Generally respondents had divided opinions on this slide in terms of product appearance, although both groups agreed that packing could be better developed.

### Key points

- *Appearance*
- *Taste*
- *Packaging*
  - not appealing

### Selected responses

#### *Positive:*

- "I think it's quite fun, it looks quite decorative in one piece."
- "Looks appetizing at first sight, everything, the top picture and products below."

#### *Negative:*

- "I do not like it, does not appeal to me."
- "The cooked and vacuum packed would appeal to me, but the rest, they just look shredded and hacked up."



*Q: What would you change about these products?*

Key points

- Package
- Recipes

Selected responses

*Positive:*

- "I would have it in a sliding pack, where you do not see fish straight off, but can look at it if you want to, with some suggestions for recipes,...., and then you can just slide it out and see ..mm...this is the product and this is what you can do with it, I found that more appealing."



3.1.5. Summary of new creative ideas for fish products

**Table 2.** Summary of new product ideas for Germany

PRODUCT	PACKAGING	INFORMATION	PURCHASE POINT	SELECTED RESPONSES
<ul style="list-style-type: none"> <li>● <b>FISH FILLET</b></li> <li>&gt; one piece of fish</li> </ul>	<ul style="list-style-type: none"> <li>● <b>PRODUCT VISIBLE</b></li> <li>&gt; transparent and clear</li> <li>&gt; sliding pack with pictures, product visible</li> <li>&gt; good welded/ shrink-wrapped</li> <li>&gt; vacuum-packed in (jar) glasses</li> <li>&gt; no outer packaging</li> <li>&gt; pictures/instructions, able to see the product</li> </ul>	<ul style="list-style-type: none"> <li>● <b>RECIPES</b></li> <li>&gt; different ways to cook ( frying, cooking, roasted, or raw)</li> <li>● <b>LABELS</b></li> <li>&gt; premium product</li> <li>&gt; origin</li> <li>&gt; brand</li> <li>● <b>HEALTH</b></li> <li>&gt; no artificial aromas</li> <li>● <b>NUTRITION</b></li> <li>&gt; no calories</li> <li>&gt; rich in vitamins and minerals</li> <li>● <b>QUALITY</b></li> <li>&gt; clear quality labels</li> <li>&gt; quality control</li> <li>● <b>ENVIRONMENTALLY CONSCIOUS</b></li> <li>&gt; sustainability</li> </ul>	<ul style="list-style-type: none"> <li>&gt; brandy supermarket</li> <li>&gt; market, specialized fish shop</li> </ul>	<ul style="list-style-type: none"> <li>● <b>ENJOYMENT/EXPERIENCE</b></li> <li>&gt; <i>"Eating to feel good"</i></li> <li>&gt; <i>"Fish that gives good feeling of life"</i></li> <li>&gt; <i>"First-class enjoyment"</i></li> <li>&gt; <i>"Trendy and classic product to get the couple together"</i></li> <li>&gt; <i>"Brings back memories of vacations"</i></li> <li>&gt; <i>"For her"</i></li> <li>&gt; <i>"For him"</i></li> <li>● <b>NUTRITION</b></li> <li>&gt; <i>"Good nutrition means to feel well"</i></li> <li>&gt; <i>"Being full but not too full"</i></li> <li>&gt; <i>"Nutrition is more than just a hobby, it is the field of knowledge - nutrition science"</i></li> <li>● <b>HEALTH</b></li> <li>&gt; <i>"Pure and natural, straight and portionable, to satisfy different needs"</i></li> <li>&gt; <i>"Natural with natural olive oil"</i></li> <li>&gt; <i>"Keep it natural - fresh"</i></li> <li>● <b>ENVIRONMENTALLY CONSCIOUS</b></li> <li>&gt; <i>"Respectful treatment of the animal "fish"</i></li> <li>&gt; <i>"Searching for fish-alternatives"</i></li> <li>● <b>TRADITIONAL</b></li> <li>&gt; <i>"Mom knows best"</i></li> <li>● <b>PRODUCT</b></li> <li>&gt; <i>"Prefer filet to the whole fish"</i></li> <li>● <b>INFORMATION</b></li> <li>&gt; <i>"Informed and enlightened"</i></li> <li>● <b>TASTE</b></li> <li>&gt; <i>"Delicious - slow food"</i></li> <li>● <b>CONVENIENCE</b></li> <li>&gt; <i>"For the oven – ready to eat"</i></li> </ul>
<ul style="list-style-type: none"> <li>● <b>PRODUCT ADDITIONS</b></li> <li>&gt; herbs</li> <li>&gt; marinade</li> <li>&gt; vegetables</li> <li>● <b>PRESERVATION</b></li> <li>&gt; deep frozen</li> <li>● <b>CONVENIENCE</b></li> <li>&gt; easy to prepare/cook</li> <li>&gt; ready for cooking</li> <li>● <b>QUALITY</b></li> <li>&gt; high quality</li> <li>● <b>PRICE</b></li> <li>&gt; price-quality</li> </ul>	<ul style="list-style-type: none"> <li>● <b>CONVENIENCE</b></li> <li>&gt; grill plate made of aluminum for oven or barbeque</li> <li>&gt; ready for cooking, fish in bag for oven or barbeque</li> <li>● <b>APPEARANCE</b></li> <li>&gt; deluxe (impressive)</li> <li>&gt; should communicate product image with pictures:</li> <li>● <b>ENVIRONMENTALLY CONSCIOUS</b></li> <li>&gt; recyclable material</li> </ul>			



3.1.6. Creative ideas for fish products per focus group

**Table 3.** Creative ideas for fish products - Focus group 1

PRODUCT	PACKAGING	INFORMATION	SELECTED RESPONSES	POINTS*
<b>MINI GROUP 1</b>				<b>27</b>
<b>Product as an alternative to wild fresh fish</b>				
> one piece of fish	> transparent and clear	> different ways to cook (frying, cooking, roasted, or raw)	> "Pure and natural, straight and portionable, to satisfy different needs"	
> deep frozen	> recyclable material or jar	> price-quality	> "Delicious - slow food"	
> easy to prepare/cook		> must be available	> "Good nutrition means to feel well" > "Eating to feel good"	
<b>MINI GROUP 2</b>				<b>23</b>
<b>I Meal with caught fish and organic vegetables</b>				
> filling	> sliding pack (well sealed)	> clear quality labels		
> high quality	> good welded/shrink-wrapped	> no artificial aromas		
> price	> no outer packaging > recyclable material > pictures/instructions, product visible	> no calories		
<b>II Meal with caught fish and organic vegetables</b>				
> have to cook it separately from vegetables	> vacuum-packed in (jar) glasses			
> not good in terms of time	> short durability			
> price drawback				
<b>MINI GROUP 3</b>				<b>22</b>
<b>Fillet of salmon with potatoes and vegetables</b>				
> ready for cooking in the oven	> deluxe (impressive) > sliding pack with pictures, able to see the product		> "Fish that gives good feeling of life" > "Mom knows best"  > "Being full but not too full" > "First-class enjoyment"  > "Nutrition is more than just a hobby, it is the field of knowledge - nutrition science" > "Respectful treatment of the animal "fish" > "Searching for fish-alternatives"  > "Trendy and classic product to get the couple together" > "Brings back memories of vacations"	

\*Each participant had 12 points in total to award to ideas.



**Table 4.** Creative ideas for fish products - Focus group 2

PRODUCT	PACKAGING	INFORMATION	SELECTED RESPONSES	POINTS*
<b>MINI GROUP 1</b>				
<b>Fine fish fillet, natural, in light herbs and spices-lemon-marinade</b>				<b>26</b>
> deep frozen	> grill plate made of aluminum for oven or barbeque		> "Natural with natural olive oil"	
<b>For different tastes:</b>	> ready for oven or barbeque > "for work"			
<i>Italian:</i> in pesto-marinade or thyme, rosemary marinade				
<i>Traditional:</i> with mustard seeds in mustard marinade				
<i>Provence:</i> with France herbs from Provence				
<i>Asian:</i> with Soya/Teriyaki, ginger, cashew, marinade				
<b>MINI GROUP 2</b>				
<b>White fish fillet, wild caught, core business</b>				<b>19</b>
> deep frozen	> be easily visible	> brandy supermarket	> "Informed and enlightened"	
> additional serving methods		> premium product from Germany		
		> origin, labels		
		> sustainability		
		> quality control		
		> brand		
		> info on preparation (frying, backing, cooking)		
<b>MINI GROUP 3</b>				
<b>I Filet with cover of herbs</b>				<b>27</b>
> innovative product (trendy)	> product visible	> market/specialized fish shop	> "For her"	
> new way of preparation with herbs, spices (Indian style)	> should communicate product image with pictures: - vacation in France / Provence - fish restaurant at harbor - "Being the fish of the triathletes"		> "Prefer filet to the whole fish" > "For the oven – ready to eat"	
<b>II Fresh fish (whole fish) like salmon</b>		> rich in vitamins and minerals	> "For him"  > "Keep it natural - fresh"	

\*Each participant had 12 points in total to award to ideas.



## 3.2. United Kingdom

### 3.2.1. Overall summary

Respondents from UK were more oriented towards innovative and enjoyment food. On the other hand they are not over environmentally conscious and not too concerned about environmental sustainability. They are very open to the subject of new fish species and see them as new possibilities but more in terms of cooking and having wider variety of fish products.

Respondents confronted with pictures of new fish products stressed the importance of appearance and presentation of the products, where they preferred products that were more visible. Packaging is important for consumers from UK, but not as much as visual appearance and taste of the product. The best way to enjoy a good meal for these respondents is in the social settings where they aim to impress others, like friends and clients with the easy made and colorful fish dish that of course could be varied. They like to vary different fish products, by changing the fish species or using the same fish species but changing the dips, sauces and marinades. They are quite innovative and adventurous in terms of experimenting with fish products and combining them with different products. Convenience weights significantly, as well as ease of preparing the dish, accompanied by the additional information on cooking and serving suggestions.

The new creative product idea that was considered most promising by the respondents is to have a joint of fish as a product that could look like a piece of meat and use it as a healthier variant for special occasions, like Sunday lunch. This product has to be appealing mostly to single consumers with busy and hectic lifestyle that prefer already prepared fish products, or even fish products on the serving trays with additional serving suggestions not to waste time. Product must be visible with transparent packaging, where fish fillet can be seen entirely. Respondents had very creative ads and ideas for communication of the fish products (see Table 5, 6 and 7).

#### Key points

- *Innovative*
- *Enjoyment*
- *Social*
- *Health*
- *Convenience*
- *Appearance*
- *Package*
- *Taste*
- *Nutrition*
- *Recipes*
- *Information*
- *Knowledge*
- *Environmentally conscious*



### 3.2.2. New food products in general

*Q: Can you give example of new food products that you bought lately?*

#### Key points

- *Innovative food*
  - kale crisps coated in cashew nuts
  - apples with black currents
- *Packaging*
  - presentation
  - portion size
- *Convenience*
  - easy to cook
- *Health*
- *Supper foods that you can add*
  - Kale
- *Taste*
- *Information*
- *Price*

#### Selected responses

##### *Positive:*

- "Marks and Spencer's kale crisps coated in cashew nuts, so I had them for lunch."
- "I look how they present the product, packaging, container, information that is what attracts me to try it."
- "In the supermarkets with fish now, they put in a bag and ask you what kind of butter you want with it. You can show it in the oven and its done. It is quite new but everyone is doing it."
- "They have to be healthy, they are promoting healthy eating now, and all the new foods that come out I would like to try, like healthy cabbage, or cross between coneflower and cabbage, I would try that."
- "Kale, some sort of super foods, make juices, put in the oven, makes soups, and it is supposed to be very, very good for you."

##### *Negative:*

- "Yes, normally the deserts, you see nice chilled deserts, and you would fancy it, but then you see take it out and it is spoonful and taste as well can be disappointing."



- "I used to love fish fingers, when I saw that they are actually categorized squid as fish, and put it in fish fingers, it was a big shocker to me, especially when it comes to processed food, I always look what sort of things they put in there, as you never know."
- "Depends on price."

### 3.2.3. Exploration of new fish products

#### a) Defining the product - personification associations

*Q: If fish would be a person, what would he or she look like, behave...say and do...*

#### Key points

- *Flexible*
  - playful
  - fit
  - athletic
  - good swimmer
  - love/hate
- Healthy
- Social
- Cleaver
- Mysterious
- Elusive
- *Unapproachable*
  - slippery
  - smelly
- *Fish species*
  - Lemon sol
  - Dolphin
  - Killer whale
  - Shark
- *Environment*

#### Selected responses

##### *Positive:*

- "Love 'em or hate 'em, fish is quite love or hate food."
-



- "Bright faced and healthy looking."
- "Tuna, they would be like gang fish, big gang men."
- "Cleaver, omega oils."
- "Mysterious, it is nothing you see, but living under the water, how many people tell the difference between cod and salmon."
- "Elusive, they do not want to be caught."
- "They would like to talk about the environment and pollution."

*Negative:*

- "Would be smelly."

b) Free association task

*Q: What comes to mind when you think about new fish products?*

Key points

- *Preservation*
  - deep frozen
  - fresh
- *Taste*
  - different flavors
- *Preparation*
- *Convenience*
  - ready meal
- *Purchase point*
- *Production*

Selected responses

*Positive:*

- "Fresh ones with spices, whole and cut up, marinated in different sauces."
- "Taste, different tastes."
- "Cooking, boiling, out of a can, raw."
- "I think ready meal or fish in sauces rather than fresh fish."
- "Supermarket, fish mongers, like fish fingers or fresh fish."



- "Farmed or wild."

Q: When you see new fish species, what images comes to mind?

#### Key points

- *Fish species*
- *Enjoyment*
  - adventurous
- *Taste*
  - different flavors
- *Health*
- *Environment*

#### Selected responses

##### *Positive:*

- "It is a positive thing to have a new fish species."
- "I get a vision of like a Japanese cook, preparing like a meal in his kitchen, I know that Japanese eat a lot fish, they are crazy about fish, and they have crazy ways of preparing them and they eat fish that might be dangerous for you, adventurous but still edible."
- "... you have a lot weird and wonderful species, and tastes good, that you could buy at regular basis."
- " I think so, that all fish are healthy, in my mind."

##### *Negative:*

- "Farmed fish they live in a sure, there are so much dirt in the rivers, fresh water fish and fish from Atlantic are more healthy."



### 3.2.4. Pictures of new fish products

#### 1. Picture - Fish (back) fillets



"Delicato"  
swordfish piece



"Delicato"  
tuna piece



"Delicato"  
Marlin piece



"Delicato"  
sturgeon piece

Comment: Overall respondents liked this slide in terms how the product was presented, as a healthy joint of meat, do not like packaging.

#### Key points

- *Appearance*
- *Variety*
- *Preparation*
- *Convenience*
- *Package*
  - could be better

#### Selected responses

##### *Positive:*

- "Looks very interesting."
- "Can be a different range of different fish, it is interesting."
- "If they would present it nicely, told you how to cook it and what to put with it."
- "I like this, look like easy to prepare, you can take it and just through it you know, it is really nice actually, they could improve the packaging and I like the fact that you can see the fish."

##### *Negative:*

- "It looks like mass produced, sometimes that going to be, this one is like in the tub."



## 2. Picture - Octopus and shrimps for Carpaccio



Comment: Respondents did not like this slide, due to the appearance and presentation, however in the creative part they have actually chosen this product to be quite appropriate for social events, as it is very convenient and already ready to serve. Some of the respondent liked it, as it looked like salami.

### Key points

- *Appearance*
- *Convenience*
- *Taste*
- *Presentation*

### Selected responses

#### *Positive:*

- "Carpaccio, thin slices, it is very trendy now."
- "I do not eat that, but I imagine that looking very nice literally in the way they have present it, I imagine having a dinner party or making a buffet table, I imagine that could be interesting to buy and present to your guests, as it looks nice."

#### *Negative:*

- "I am put off by octopus and shrimps, and whatever this is, Carpaccio, the thought of these ones, it makes me think "yuck", it is slimy, I do not like even thinking of eating them."
- "The visually pictures are unattractive."



### 3. Picture - Fish hamburgers and sausages



Comment: Overall respondents did not like this slide, as thought of having fish hamburgers and sausages seemed unnatural, but again in the creative part they thought that fish burgers could be a good quick food for social events and barbeque.

#### Key points

- *Kids*
- *Taste*
- *Appearance*
- *Health*

#### Selected responses

##### *Positive:*

- "The only potential advantage, that I could see, is if I am thinking of the children that would not necessarily eat fish, it could be kind of a subtle way introducing children to fish in a fun way that might make them more inclined to eat fish."
- "Fish burgers and sausages you can barbeque them in the summer, tasty."

##### *Negative:*

- "It is unnecessary, fish comes in its own format, it is different, it is like you want to dressed it up as a sausage."
- "With fish you expect to be like a nice fillet, like a nice piece, in a sausage it had to be skewed up and doesn't taste good."
- "It's unhealthy."



#### 4. Picture - Salmon Fillet



Comment: Generally this product was not considered as something new, but was seen together with back fillet as a good option. Furthermore, respondents saw potential of this product, especially in the creative phase, where they saw this product with variety different fish species and additional sauces, marinades, as well as convenient product for social occasions.

#### Key points

- *Appearance*
  - fresh
- Variety
- Taste

#### Selected responses

##### *Positive:*

- "It looks quite fresh and nice sort of piece."
- "You can have something like salmon with different things, filling, that's already been done."
- "Looks very tasty and appetizing, but not new."

##### *Negative:*

- "Talking about salmon fillet, I actually bought something a bit similar to this, they put a very nice picture on, but when I actually prepared it just never looks the same, never, ever, and I was very disappointed with it, and I was thinking to myself, probably if I want to prepare it again, I would prepare it by myself."



5. Picture - Snacks: dried fish fillet, fried cod skin, crunchy surimi, and fish sticks



Comment: Respondents generally did not like these products, but on the other hand they would reconsider this position if products color and shape changed and some dips added.. If product changes taken into account than snacks were seen as very convenient for special occasions.

Key points

- *Convenience*
- *Appearance*
- *Health*
- *Taste*

Selected responses

*Positive:*

- "You can have these for dinner parties."
- "If you put in a nice tray, they would be good."
- "Cod skin, it may be healthy to have a package of crisps, you do not know until you actually see it."

*Negative:*

- "Snacks would not be to everyone tastes."
- "It is not healthy, all fried and crispy."



## 6. Picture - Octopus and seafood salad



Octopus in a natural liquid



Octopus in oil



Cooked, vacuum-packed octopus



Sea-food salad, in natural juice

Comment: Generally respondents liked visible packaging and the fact that the product is interesting. In the creative part, they thought this product as very convenient for social occasions.

### Key points

- Packaging
- Appearance

### Selected responses

#### *Positive:*

- "I like the fact that is visible packaging, there is no fills and you know that you will get the good quality hopefully, do not hide it in there."
- "I like what they have done with some of the products, they are quite intriguing, like octopus and seafood salad."

#### *Negative:*

- "...if I showed to my kids things like octopus, they would say: "You must be mad, I'm not having it at all."



3.2.5. Summary of new creative ideas for fish products

**Table 5.** Summary of new product ideas for UK

PACKAGING	INFORMATION	PURCHASE POINT	SELECTED RESPONSES
<ul style="list-style-type: none"> <li>● <b>CONVENIENCE</b></li> <li>&gt; for a barbeque, in a tray</li> <li>&gt; Microwavable packs other ingr., like sauces, herbs.</li> <li>&gt; readymade</li> </ul>	<ul style="list-style-type: none"> <li>● <b>RECIPES</b></li> <li>&gt; put serving suggestions on reverse</li> <li>&gt; different ways of cooking</li> </ul>	<ul style="list-style-type: none"> <li>&gt; supermarket</li> </ul>	<ul style="list-style-type: none"> <li>● <b>INNOVATIVE</b></li> <li>&gt; <i>Looks like joint of meat, but healthier better cut!</i></li> <li>&gt; <i>New Sunday roast!</i></li> <li>&gt; <i>Driving the new wave</i></li> <li>&gt; <i>Why sit on the sofa when you can climb a mountain?</i></li> <li>&gt; <i>Like a juicy steak and chips</i></li> <li>&gt; <i>New, 'nouvelle' cuisine, on the edge,</i></li> </ul>
<ul style="list-style-type: none"> <li>● <b>PRESENTATION</b></li> <li>&gt; beautifully packed</li> <li>&gt; laid out on the fancy trays, garnished and dressed</li> </ul>	<ul style="list-style-type: none"> <li>● <b>QUALITY</b></li> <li>&gt; Sample?</li> <li>&gt; guarantee of quality</li> </ul>		<ul style="list-style-type: none"> <li>● <b>ENJOYMENT</b></li> <li>&gt; <i>on a voyage of self-discovery and excitement</i></li> </ul>
	<ul style="list-style-type: none"> <li>&gt; <b>APPEARANCE</b></li> <li>&gt; appealing</li> <li>&gt; It looks different</li> </ul>		<ul style="list-style-type: none"> <li>● <b>HEALTH</b></li> <li>&gt; <i>Hedonistic lifestyle on the edge</i></li> </ul>
	<ul style="list-style-type: none"> <li>&gt; <b>TASTE</b></li> <li>&gt; different new flavor, texture</li> </ul>		<ul style="list-style-type: none"> <li>&gt; <i>'I'm healthy, my clients will be too' – set an example</i></li> </ul>
	<ul style="list-style-type: none"> <li>● <b>NUTRITION</b></li> <li>&gt; vitamins, protein</li> <li>&gt; energy</li> <li>&gt; 'pescatorian' (only eats fish)</li> </ul>		<ul style="list-style-type: none"> <li>&gt; <i>Healthy based with different levels, depending how healthy you want to be.</i></li> <li>● <b>TASTE</b></li> <li>&gt; <i>This product has to be seen and tasted to be believed</i></li> <li>&gt; <i>Different new flavor, texture</i></li> </ul>
	<ul style="list-style-type: none"> <li>● <b>HEALTH</b></li> <li>&gt; healthier than meat</li> </ul>		<ul style="list-style-type: none"> <li>&gt; <b>APPEARANCE</b></li> <li>&gt; <i>Looks like everything they would want in a fish dinner</i></li> <li>● <b>PREPARATION</b></li> <li>&gt; <i>Dealing with unknown</i></li> <li>● <b>KNOWLEDGE</b></li> <li>&gt; <i>How to make friends and influence people</i></li> </ul>
	<ul style="list-style-type: none"> <li>● <b>ENVIROMENTALLY CONSCIOUS</b></li> <li>&gt; farmed produced</li> <li>&gt; How it is farmed/caught?</li> <li>&gt; Environmentally friendly?</li> </ul>		<ul style="list-style-type: none"> <li>● <b>SOCIAL</b></li> <li>&gt; <i>looks impressive for exquisite friends and for clients</i></li> <li>● <b>CONVENIENCE</b></li> <li>&gt; <i>Eat well, but not have time to cook from scratch</i></li> <li>&gt; <i>All the pleasure with little effort</i></li> <li>● <b>ENVIROMENTALLY CONSCIOUS</b></li> <li>&gt; <i>Fresh that -wild, farmed or processed?</i></li> </ul>



3.2.6. Creative ideas for fish products per focus group

**Table 6.** Creative ideas for fish products - Focus group 1

PRODUCT	PACKAGING	INFORMATION	AD	SELECTED RESPONSES	POINTS
<b>MINI GROUP 1</b>					31
<b>Fish (back) fillet + fish burgers and sausages</b>			> <i>Salmon swimming and jumping upstream</i>		
> Vegetables + back fillet (joint) + potatoes	> for a barbeque, in a tray		> <i>Cow with fish head</i>	> <i>It looks like Sunday lunch but isn't, educating the family</i>	
> (No meat) Fish + 2 vegetables			> <i>Pig/pork head with the fish body</i>	> <i>Perfect roast lunch, but fish not meat</i>	
> easy to cook				> <i>Fish – no fat</i>	
> fresh, not frozen				> <i>Exercise – keep the fat away</i>	
> outdoor type – sociable				> <i>Healthy brain, healthy body</i>	
> good product, but reasonable price				> <i>Living his idea about the best health life he can have</i>	
> healthy					
<b>MINI GROUP 2</b>					20
<b>Salmon fillet + Fish burgers and sausages</b>			> He is on a sport field, feeling tired and sad – “ <i>Me needs more energy...</i> ” Worried how he looks for his students...Idea! Eat more fish! But will it keep me full? Burger fish, tasty with ketchup. Lean food, keeps him fit and easy to cook.	> <i>Eating the right food is the way to do it, but it needs to be quick, easy to cook!</i>	
> More variety in flavors, complete meals?	> Microwavable packs with other ingredients included, like sauces, herbs.	> More ideas based on salmon fillet and other products		> <i>Slim and energetic!</i>	
	> To eat with partner, but also to share with friends	> Fish burgers and sausages too.		> <i>An example to others!</i>	
<b>MINI GROUP 3</b>					12
<b>Back fillet – the healthiest option</b>			> <i>Person morphing into a fish -&gt; streamed and healthy living</i>		
> quick and convenient		> put serving suggestions on reverse		> <i>Visit us on twitter to see full range of recipes and ideas!</i>	
> different marinades					
> cook in different ways					
> price reflects the quality of the product					
> visually appealing					
> Innovative food					



**Table 7.** Creative ideas for fish products - Focus group 2

PRODUCT	PACKAGING	INFORMATION	AD	SELECTED RESPONSES	POINTS
<b>MINI GROUP 1</b>					<b>15</b>
<b>Octopus and seafood Carpaccio + Octopus and sea food salad</b>	> fresh, rather than vacuum packed	> serving info	> Man and the woman having a dinner Man: "It was so easy... little does she know..." Woman: "Fabulous dinner, darling (posh accent)" She thinks it was difficult to make and to present and he thinks little does she know.		
> For healthier diet	> ready to eat				
> Ton of dips and sauces	> beautifully packed				
> Accompaniments (readymade salads)	> laid out on the fancy trays, garnished and dressed				
<b>MINI GROUP 2</b>					<b>24</b>
<b>Octopus and seafood salad</b>			> He is on the surfboard, riding the wave, hedonistic lifestyle, and he is living on the edge. This product has to be seen and tasted to be believed. He knows how to make friend and influence people about tasting the product. He is a new guy driving the new wave forward of presenting this new product to the wider public	> <i>Hedonistic lifestyle on the edge</i>	
				> <i>This product has to be seen and tasted to be believed</i> > <i>How to make friends and influence people</i> > <i>New kid on the block</i>  > <i>Voyage of new-discovery, experience contesting the taste you never tried before.</i> > <i>Why sit on the sofa when you can climb a highest mountain?</i> > <i>Driving the new wave</i>	
<b>MINI GROUP 3</b>					<b>33</b>
<b>Salmon fillet</b>			<i>My hectic lifestyle...Clock shows 8am 10 – cooking; 11 – exams; 12 – WORK 13 – socializing; 14 – shopping; 15 – GYM; 16 – commuting; 17 - family 18 – FOOD; 19 –dazzling; 20 – eating 21 – BED All I wanted is a simple life living by the seaside. Growing my own vegetables and eating healthy stuff. And I can still get that while living the high octane lifestyle in the major city. Sitting at her table in the despair, thinking what will I eat for dinner?</i>	<i>No two exact same dishes in a row</i>	
> vary fish or vary the 'how', like marinades, dressing	> readymade			> <i>You have it ready for you, healthy but still have the hectic lifestyle</i>	
> choice of vegetables, potatoes or even a bottle of wine! > choose dressings that vary in healthiness				> <i>Healthy based with different levels, depending how healthy you want to be.</i>	



### 3.3. France

#### 3.3.1. Overall summary

Respondents from France were quite adventurous and innovative in terms of food in general and fish products in particular. They were open to new tastes and products. They are not afraid of the little challenge of trying new fish products and new recipes, and more than that they would actually love to experience new things. They prefer fish from the sea (wild-caught) above farmed fish. However, they are very environmentally conscious and painfully aware of the overfishing and importance of fish farms for the future of the fish consumption. Hence, they would not mind eating fish products from farmed fish, if this fish is ethically treated in terms of rising and feed. As they are environmentally conscious, they would like to have the information on the product packages related to production of the fish and its origin.

Respondents were quite divided in their opinions towards the pictures of new fish products. Overall they preferred more unaltered fish products like back fish fillet and salmon fillet to more convenient fish products. On the other hand, some respondents liked convenience fish products and gourmet products that are readymade, pre-sliced and easy to prepare. But, respondents emphasized that they must be able to vary these products in terms of preparation and different accompaniments like vegetables and sauces. Furthermore, respondents preferred these products to also be accompanied by the 'chef's advices' and recipes how these products could be made more enjoyable. Moreover, respondents considered fish as a 'basic ingredient' that should be processed as little as possible. What accompanies fish is quite important to the respondents as they found that in this way flavor of fish could be emphasized. Respondents also think that packing of the product should carry the image of the fish for easier association.

With regards to new product ideas, respondents were oriented more toward fresh fish fillets and luxury products like Carpaccio (see Table 8, 9 and 10). Respondents considered that fish should not be altered as much, but rather should be creatively presented or it should be accompanied by the different sauces and spices. Respondents were very creative regarding the packaging and information that should accompany the product, like recipes and health-related messages. The best excepted idea among respondents was for a package in a form of the round box with the wheel and different sections for fish and accompanying products.

#### Key points

- *Innovative*
- *Environmentally conscious*
- *Convenience*
- *Packaging*
- *Information*
- *Health*
- *Taste*
- *Appearance*
- *Fish species*
- *Price*



### 3.3.2. New food products in general

*Q: Can you give example of new food products that you bought lately?*

#### Key points

- *Innovative food*
  - fresh cheese mayonnaise
  - lemon caviar (fruit - Citrus australasica)
  - sea weed algae tartar
  - tartar sauce with truffles
- *Convenience food*
  - Salmon mackerel rillettes (pate)
  - mini food, like pizzas, soup with little croutons
  - apéricubes (cubes of cow cheese)
- *Health*
- *Taste*
- *Appearance*
- *Fish species*
  - tilapia
  - tuna, red tuna
  - salmon
- *Price*

#### Selected responses

##### *Positive:*

- "Fresh cheese mayonnaise, it's kind of new, like saucer mayonnaise in terms of taste or it's like a cream cheese if you like it."
- "Lemon caviar, if you opened it and its little bids like caviar, but yellow, translucent, like salmon eggs really but the taste is between citrus and grapefruit."
- "Sea weed algae tartar, I heard about it, very fresh seafood."
- "I discovered new soups with garlic croutons, mini stuff, like pizzas, and I wanted to discover, and convenient, there was no cooking, it was easy prepared."
- "I like it, healthy, and concentrate of sea."
- "Tilapia fish, was tasty maybe also because of the sauce, the presentation was also nice, fillets with sauce."



*Negative:*

- "Saw on TV and looked on the internet, but the price put me off."
- "...they are always trying to invent something new. This weekend I tasted, ...you know cake, and the cider was not good, and how many times I am thinking, there are bizarre combinations of products that you would not think sometimes."

3.3.3. Exploration of new fish products

a) Personification associations – giving human characteristics to the fish

*Q: If fish would be a person, what would he or she look like, behave...say and do...*

Key points

- *Flexible*
  - sporty
  - mobile
  - free
  - active
- *Camouflage ability*
  - colorful
  - beautiful
  - sensual
- *Self-preserving*
  - intelligent
  - protected
  - imposing
- *Man*
  - Commander Cristo
  - Neptune
  - Men from Scandinavian countries
- *Woman*
  - serene
  - Brigitte Bardot
- *Hermaphrodite*
- *Fish species*
  - orca
  - Yael



- salmon
- dolphin
- clown fish
- shark
- parrot fish
- *Environmentally conscious*

#### Selected responses

##### *Positive:*

- "Sporty person, hermaphrodite, both man and the women, someone moving a lot, active."
- "Dolphin, intelligent and protected, theoretically is safe."
- "Maybe some man, from North Europe, from the Scandinavian countries, because of the red skin with the salt."
- "Brigitte Bardot, because fish is sensual, and she is, beautiful shapes, she was beautiful."

##### *Negative:*

- "If fish could talk to me, and if I was a fish I would tell them the mankind that they hurt me very much. Because they overexploit me, overfish me."

#### b) Free association task

Q: What comes to mind when you think about new fish products?

#### Key points

- *Environmentally conscious*
    - overfishing
    - fish farms
    - ethics
    - deep sea fish
    - ugly fish
  - *Convenience*
    - readymade
  - *Packaging*
  - *Information*
    - recipe
-



- *Health*
  - nature
  - processed
  - hormones
  - GMOs
- *Taste*

#### Selected responses

##### *Positive:*

- "It can be a fish farm, just read that for fish consumption that can be a solution, it could be artificially fed by some products like cereals, something like that. Can be healthy."
- "Fish farms became a must. Otherwise, we couldn't do without them anymore. We need the fish farms. But the question is what do you give them, if you give them shit, you will get shit."
- "Maybe like rillettes, new flavors, new recipes, readymade products that you just need to heat."
- "I imagine, new fish species, new packaging, presentation."

##### *Negative:*

- "I think we going to fish them deeper and deeper, I think that is what is happening or lot of genetic mutations, but I am saying new fish species, which we now fish, as ugly as anglerfish, we never knew as panga, fish was traditional as sardine, and for this exotic fish we have to go deeper to get them."
- "Healthy fish is the fish that is not grown in those factories, ready to use, cleaned, scaled and so on."
- "Well, couple years ago, I saw a panga fish in the store, ... apparently they do not do it with lots of ethics, because they feed them as fast and quick as possible."

Q: When you see new fish species, what images comes to mind?

#### Key points

- *Environmentally conscious*
  - overfishing
- *Fish species*

#### Selected responses

##### *Negative:*

- "The species from far away, more and more they go further to artic, maybe it's a new fish, but we go further, and further to get a stock."



### 3.3.4. Pictures of new fish products

#### 1. Picture - Fish (back) fillets



Comment: In general, respondents liked the appearance of these products, as they seem as the 'top range' and 'luxury' products, however they would like to change the package to reflect the product better and add some recipes with the product.

#### Key points

- *Appearance*
- *Packaging*

#### Selected responses

##### *Positive:*

- "This is considered luxury for us."
- "It could be found in the delicatessen store, expensive, top range fish."

##### *Negative:*

- "It reminds me of meat, like sweet meat."
- "How it is presented here it reminds just another me of piece of ham, especially first one."

#### Q: What would you change about it?

#### Key points

- *Packaging*
- *Information*
  - recipe

#### Selected responses

---



*Positive:*

- "If you would show the swordfish, you know that they have a little sharp, horn, so you can identify it, or maybe make like a shape of the fish, it could be the shape of the fish the packing, or silver or even golden with golden rim, saying this is luxury. In that kind of package."
- "Maybe a recipe idea, I would put the recipe in the back."



## 2. Picture - Octopus and shrimps for Carpaccio



Comment: Overall, respondents did not like these products. The main problem was that it reminded them of the salami from meat and they did not like associating fish with meat products. However, they would reconsider if packaging changed and some information like recipes added to the package.

### Key points

- *Appearance*
- *Taste*
- *Convenience*
- *Health*

### Selected responses

#### *Positive:*

- "If you imagine that there no more sausage, then it looks more appetizing."
- "I would not like the sausage shape, but it could be a time-saver we do not need to slice it, it's just a plate with the plastic cover."

#### *Negative:*

- "This looks like charcuterie, salami, industrial, discount stores, low range area."
- "I am not against octopus Carpaccio and shrimps, but by the look of this, yuck."
- "It does not look healthy."

*Q: What would you change about it?*

### Key points

---



- *Package*
- *Preparation*

Selected responses

*Positive:*

- "... on a beautiful plate with the transparent film, or even transparent plastic cover."



### 3. Picture - Fish hamburgers and sausages



Comment: Respondents did not like these products, as they appeared too processed and unhealthy. But they think that these products could be good for children, as they would eat more fish in this form.

#### Key points

- *Appearance*
- *Taste*
- *Kids*

#### Selected responses

##### *Positive:*

- "What about children, they could eat fish like this."
- "Fish sausages, could be good, in terms of taste, maybe in a good restaurant."

##### *Negative:*

- "To put sausage with fish, visually it is a sin."
- "Sausage, fish sausage, that's industrial, the shape of the sausage, they produce it by the mile."

*Q: What would you change about it?*

#### Key points

- *Appearance*

#### Selected responses

##### *Positive:*

- "It could be in cubes."
- "It could be mini hamburger, like two small size hamburgers with fish that could be nice "



#### 4. Picture - Salmon Fillet



Comment: This product has been received really well by the respondents and they saw it as a whole convenient meal. The only thing they would add would be some additional sauces in a separate package and information regarding the preparation of the product.

#### Key points

- *Appearance*
- Taste
- Health
- Convenience

#### Selected responses

##### *Positive:*

- "It's visual, you see layers of food and colors pretty well."
- "It looks appetizing, looks good, side dish and the fillet; it's the whole fish and the pastry, looks generous."
- "It is a healthy product. There is a green kind of touch, vegetables, and fish does not look very processed."
- "I think it is a whole meal, you have a fish, vegetables, bread. You have alliance with land and the sea even with the piece of bread, vegetable from the land and fish from the sea."

##### *Negative:*

- "Tells us where it comes from."

*Q: What would you change about it?*



Key points

- Package
- Information

Selected responses

*Positive:*

- "What about salad sauce, some seasoning, maybe one separate bag, for whoever wants' it."



5. Picture - Snacks: dried fish fillet, fried cod skin, crunchy surimi, and fish sticks



Comment: Respondents were really divided considering these products. Either they liked them seeing the opportunity in terms of convenience or perceived them as fried unhealthy products. They think that the package of the products should be made in a more appealing manner.

Key points

- *Appearance*
- *Taste*
- *Convenience*
- *Kids*
- *Health*

Selected responses

*Positive:*

- "It is like aperitif, bottom left is nice, and bottom right would be good for kids, it is not a side dish, it is like crisps, it must be crispy, top left you want to try it, all of them fish snacks."
- "It looks like aperitif; I would try it to nibble on."

*Negative:*

- "It is fast food, everything is fried."

*Q: What would you change about it?*

Key points

- *Package*
- *Appearance*
- *Information*



### Selected responses

#### *Positive:*

- "Presented in plates and not in plastic. Like packaging, beautiful plates."
- "Maybe, this kind of product, you should tell us the percentage of fish in it, if it 10% fish, forget about it, if it is just butter, you should say percentage."



## 6. Picture - Octopus and seafood salad



Octopus in a natural liquid



Octopus in oil



Cooked, vacuum-packed octopus



Sea-food salad, in natural juice

Comment: Generally respondents were divided on these products. They thought of them as convenient and healthy, but they did not like the appearance and the package. They would prefer different package, additional sauces and information.

### Key points

- *Packaging*
- *Convenience*
- *Health*
- *Appearance*

### Selected responses

#### *Positive:*

- "This should - would come in the special tray with sauce, I like octopus, but this has more quantity, convenient, sauce this good, but the label is not really good."
- "They look healthy, it is healthy enough and natural."

#### *Negative:*

- "The whole octopus is impressive, to see the whole animal like that and tag on it its bizarre, my children would run away screaming, in horror."

*Q: What would you change about it?*

### Key points

- *Package*
- *Information*
- *Communication*



### Selected responses

#### *Positive:*

- "This should come in the special tray with sauce. "
- "...give a product and give us an idea."
- "Sea breeze on a boat, good waves with the sea fresh smell, something about fresh it should be fresh."



3.3.5. Summary of new creative ideas for fish products

**Table 8.** Summary of new creative ideas for France

PRODUCT	PACKAGING	INFORMATION	PURCHASE POINT	SELECTED RESPONSES
<ul style="list-style-type: none"> <li>● <b>PLATE OF OCTOPUS WITH SEAWEED, BERRIES, LIME, OLIVE OIL, LEMON, LITTLE TOAST</b></li> </ul>	<ul style="list-style-type: none"> <li>● <b>CONVENIENCE</b></li> </ul>	<ul style="list-style-type: none"> <li>● <b>RECIPES</b></li> </ul>		<ul style="list-style-type: none"> <li>● <b>ENVIROMENTALLY CONCIOUS</b></li> </ul>
<ul style="list-style-type: none"> <li>● <b>SWORDFISH FEUILLET + SAUCES</b></li> </ul>	<ul style="list-style-type: none"> <li>&gt; plate with transparent plastic</li> </ul>	<ul style="list-style-type: none"> <li>&gt; original recipe uncommon recipes</li> </ul>	<ul style="list-style-type: none"> <li>&gt; supermarket</li> </ul>	<ul style="list-style-type: none"> <li>&gt; <i>Responsible farming</i></li> </ul>
<ul style="list-style-type: none"> <li>&gt; with dips and sauces</li> </ul>	<ul style="list-style-type: none"> <li>&gt; ready for the microwave</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Recipe from fish monger</li> </ul>		<ul style="list-style-type: none"> <li>&gt; <i>Fears from documentaries that point out all toxic things fish eat.</i></li> </ul>
<ul style="list-style-type: none"> <li>&gt; presented - shape of fish</li> </ul>	<ul style="list-style-type: none"> <li>&gt; presented in the shape of fish</li> </ul>	<ul style="list-style-type: none"> <li>&gt; recipe idea / chef with picture of the final result</li> </ul>		<ul style="list-style-type: none"> <li>&gt; actual fish 100%</li> </ul>
<ul style="list-style-type: none"> <li>● <b>FISH CARPACCIO WITH GINGER AND CHILLI (DIFFERENT PRODUCTS)</b></li> </ul>	<ul style="list-style-type: none"> <li>&gt; Round box, with the wheel on the top that you can turn; a in each compartment different surprise dishes</li> </ul>			<ul style="list-style-type: none"> <li>● <b>ENJOYMENT</b></li> </ul>
<ul style="list-style-type: none"> <li>&gt; with dips and sauces</li> </ul>	<ul style="list-style-type: none"> <li>&gt; A4 format tray - lunch, meal tray (with fork / Swedish bread / complete meal/salad)</li> </ul>	<ul style="list-style-type: none"> <li>● <b>HEALTH</b></li> </ul>		<ul style="list-style-type: none"> <li>&gt; <i>Recreate the sensations you can have when eating fish on the beach or on the seaside</i></li> </ul>
<ul style="list-style-type: none"> <li>● <b>DIFFERENT FISH-BASED RECIPES</b></li> </ul>	<ul style="list-style-type: none"> <li>● <b>PRESENTATION</b></li> </ul>	<ul style="list-style-type: none"> <li>&gt; health-related message</li> </ul>		<ul style="list-style-type: none"> <li>&gt; <i>Dreams of escaping and sailing the high sea.</i></li> </ul>
<ul style="list-style-type: none"> <li>&gt; readymade dish</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Cardboard pack with transparent section on the lid, visible brand, products inside, recipe, preparation model</li> </ul>	<ul style="list-style-type: none"> <li>● <b>NUTRITION</b></li> </ul>		<ul style="list-style-type: none"> <li>&gt; <i>Dreams: spend a pleasant moment around a good dish</i></li> </ul>
<ul style="list-style-type: none"> <li>&gt; variations in fish and marinades</li> </ul>		<ul style="list-style-type: none"> <li>&gt; low calories</li> </ul>		<ul style="list-style-type: none"> <li>&gt; <i>feeling like escaping, authenticity, exceptional moments</i></li> </ul>
<ul style="list-style-type: none"> <li>● <b>FISH ROAST</b></li> </ul>		<ul style="list-style-type: none"> <li>● <b>ENVIROMENTALLY CONSCIOUS</b></li> </ul>		<ul style="list-style-type: none"> <li>&gt; <i>"Surprise, pleasure, diversity"</i></li> </ul>
<ul style="list-style-type: none"> <li>● <b>FISH FILLET</b></li> </ul>		<ul style="list-style-type: none"> <li>&gt; organic farming</li> </ul>		<ul style="list-style-type: none"> <li>● <b>HEALTH</b></li> </ul>
<ul style="list-style-type: none"> <li>● <b>PRESERVATION</b></li> </ul>		<ul style="list-style-type: none"> <li>&gt; fair trade fishing</li> </ul>		<ul style="list-style-type: none"> <li>&gt; <i>With fish you do not take any risk!</i></li> </ul>
<ul style="list-style-type: none"> <li>&gt; fresh</li> </ul>				<ul style="list-style-type: none"> <li>&gt; <i>treat yourself without feeling guilty for the weigh or health</i></li> </ul>
<ul style="list-style-type: none"> <li>● <b>CONVENINCE</b></li> </ul>				<ul style="list-style-type: none"> <li>● <b>INNOVATIVE</b></li> </ul>
<ul style="list-style-type: none"> <li>&gt; readymade</li> </ul>				<ul style="list-style-type: none"> <li>&gt; <i>practically speaking, the product is a basic ingredient that requires little preparation</i></li> </ul>
<ul style="list-style-type: none"> <li>&gt; easy to prepare/cook</li> </ul>				<ul style="list-style-type: none"> <li>&gt; <i>"The wheel of the fishmonger"</i></li> </ul>
<ul style="list-style-type: none"> <li>● <b>HEALTHY</b></li> </ul>				<ul style="list-style-type: none"> <li>&gt; <i>"Daily meal of the Fish monger"</i></li> </ul>
<ul style="list-style-type: none"> <li>● <b>INNOVATIVE</b></li> </ul>				<ul style="list-style-type: none"> <li>&gt; <i>"Chefs recipes"</i></li> </ul>
<ul style="list-style-type: none"> <li>&gt; original combinations</li> </ul>				<ul style="list-style-type: none"> <li>&gt; <i>"Fish in all versions"</i></li> </ul>
<ul style="list-style-type: none"> <li>● <b>ENJOYMENT</b></li> </ul>				<ul style="list-style-type: none"> <li>● <b>SOCIAL</b></li> </ul>
<ul style="list-style-type: none"> <li>&gt; surprise</li> </ul>				<ul style="list-style-type: none"> <li>&gt; <i>Alone in the evening or on the go with colleagues</i></li> </ul>
				<ul style="list-style-type: none"> <li>● <b>CONVENIENCE</b></li> </ul>



3.3.6. Creative ideas for fish products per focus group

**Table 9.** Creative ideas for fish products – Focus group 1

PRODUCT	PACKAGING	AD	SELECTED RESPONSES	POINTS
<b>MINI GROUP 1</b>				<b>26</b>
<b>Freshly-made dish / plate made of Mediterranean octopus with seaweed and berries, green lime and little toast, olive oil, lemon, blinis, and cilantro</b>	> convenient plate, <i>i.e.</i> snack, transparent plastic cover	<i>"Fresh fish for all times"</i>	<i>"Fresh fish for all times"</i>	
		<i>"Fisherman squad"</i>	<i>"Fisherman squad"</i>	
		<i>"Fresh fish at all hours"</i>	<i>"Fresh fish at all hours"</i>	
<b>MINI GROUP 2</b>				<b>20</b>
<b>Swordfish Feuillet + sauces</b>	> everything is presented in a shape of fish, sauces in one corner and the raw fish in slices to do the scales	<i>"Fish in all versions"</i>	<i>"Fish in all versions"</i>	
> raw scale-shaped slices of swordfish		> not a plain fish, many ways to consume fish, it is not just fish and butter, fried, it is also, thinking about the holidays, thinking about the pleasure, to taste some fish near the beach, out of ordinary.		
> swordfish tartar sauce		> creation, show luxury product with simple products, possibility to make a whole meal based on one type of fish that would satisfy everyone at the table.		
> Cooked swordfish / little dices of swordfish with picks.				
<b>MINI GROUP 3</b>				<b>38</b>
<b>Fish Carpaccio with ginger and chili (different products)</b>	> Round box, with the wheel on the top that you can turn and in each compartment you have different surprise dishes	<i>"The wheel of the fishmonger"</i>	<i>"The wheel of the fishmonger"</i>	
> frozen	> convenient	<i>"Surprise, pleasure, diversity" - Box for the week and with recipes inside, variety</i>	<i>"Surprise, pleasure, diversity"</i>	
	> readymade	> Turn the wheel and take out what you need, very practical, package, and it is a surprise and you turn the wheel and have different products, salmon, Carpaccio. > in the ad, she would turn the wheel and we can see her in diverse situation, choosing each product and eating it, with boyfriend alone. It is diverse and convenient, saving time and money.		



**Table 10.** Creative ideas for fish products – Focus group 2

PRODUCT	PACKAGING	INFORMATION	AD	SELECTED RESPONSES	POINTS
<b>MINI GROUP 1</b>					<b>24</b>
<b>Different fish-based recipes:</b>	> A4 format tray - lunch, meal tray (with fork / Swedish bread / complete meal/salad)	> original recipe names, uncommon recipes	>"Slogan: healthy / complete / quick / good"	>"Slogan: healthy / complete / quick / good"	
> Diced	> Cardboard pack, transparent lid, visible brand, products inside, recipe, preparation mode	> health-related message	>"Advert: alone in the evening or on the go with colleagues"		
> Fillets	> easy to prepare	> low calories			
> Original combinations with cereals or vegetables (wheat, spelt, quinoa, sweet potatoes)		> origin  > organic farming > fair trade fishing			
<b>MINI GROUP 2</b>					<b>24</b>
<b>Fish roast</b>		> Recipe from fish monger	>"Radio advert - Daily meal of the Fish monger"	>"Daily meal of the Fish monger"	
			<b>TODAY'S FISHMONGER MENU</b> <b>Fish roast recipe</b> > <i>It is not only on Fridays that you eat fish, fish is welcome to our meal every day. My fish monger is the magician, he makes cod, salmon, marlin. It is very good and inexpensive. My fish monger is an artist.</i>		
<b>MINI GROUP 3</b>					<b>24</b>
<b>Fish fillet</b>			>TV spot - "Chefs recipes"	>"Chefs recipes"	
> Basic product, cooked fish				>"Discover recipe - great both cold or hot"	
> 3-day meal plan		> recipe idea / chef with picture of the final result	>family looking for ideas in the kitchen to cook, chefs comes and gives advice, different meals during the week. > The chef whispers a meal idea to the mother (secretly in the kitchen): "Discover recipe - great both cold or hot"	>"With the chef, my recipes are always a success (like in a restaurant)"	
> 1 hot / cold recipe					
+ 3 different side dishes: -vegetables -potatoes -different sauces					



### 3.4. Italy

#### 3.4.1. Overall summary

Italian respondents were more traditional and reserved regarding the new experiences in fish products and food products in general. Respondents would prefer fish products that carry a label or a brand they could associate to a certain production method or product quality attribute (*i.e.*, taste). Attractive packaging and serving suggestions in the form of traditional recipes are also seen as an added value to a product. Even though traditional, respondents were not afraid of the cooking challenge regarding the fresh fish products. Respondents also pointed out importance of the environmental sustainability and need for a new ways of fish production.

Regarding the pictures of new fish products, the most important element respondents from Italy would emphasize would be image of the product in a form of brand. More specifically, they would like to associate product to a well-known brand, see it in a nice packaging with additional information about the origin of the product. Origin and label of the product are very important to these respondents. Also they would like to have additional information regarding the cooking methods and recipes. They like 'easy to cook' and readymade fish products, but are not too much bothered with convenience.

Italian respondents were also very traditional and conservative in creating new ideas for fish products (see Table 11, 12 and 13). Most of the ideas were mainly related to the traditional recipes, with visible packaging and information on the product's origin. The product idea that got more attention was a traditional recipe for a fish fillet with the bread crust that could be accompanied with vegetables and sauce.

#### Key points

- *Traditional*
- *Brand*
- *Packaging*
- *Preparation*
- *Information*
- *Origin*
- *Label*
- *Convenience*
- *Quality*
- *Price*
- *Appearance*
- *Taste*
- *Environmentally conscious*



### 3.4.2. New food products in general

*Q: Can you give example of new food products that you bought lately?*

#### Key points

- *Innovative*
  - breadsticks
  - discs of puff pastry
  - ethnic food
  - pomelo (citrus fruit with the look of big grapefruit)
- Traditional
- Taste
- Information
- Packaging
- *Preservation*
  - tin
  - frozen
- *Fish species*
  - tuna
  - cod
  - plaice
  - anchovies
  - salmon
- *Convenience*
- *Quality*
- *Brand*
- *Price*

#### Selected responses

##### *Positive:*

- "The other day I bought a new product that I had never seen, is called "pomelo"; it tastes like apple and grapefruit and is very good."
- "What did you like about the new product? - The product quality."
- "I buy it if it's on offer, if it's cheap."



- "...theoretically if your brand for bakery products is MulinoBianco, and you find at the supermarket new breadsticks from Papua you'll buy it."
- "I am very reluctant in buying new products because I'm very traditional as far as food."
- "I buy one, I taste it and if the product is good I buy it again."
- "For me a good packaging and communication is essential."
- "I'm rarely disappointed by a product, maybe I can notice a difference for example in cooking times... "

*Negative:*

- "Sometimes what is said in advertising doesn't reflect the quality."
- "...sometimes the unknown brand than a known one have disappointed me; for the same product category, attracted by the lower price."

### 3.4.3. Exploration of new fish products

#### a) Personification associations – giving human characteristics to the fish

*Q: If fish would be a person, what would he or she look like, behave...say and do...*

#### Key points

- *Flexible*
  - freedom
  - openness
  - living day by day
  - no taboos
- *Sociable*
  - free spirit
  - sweet personality
  - easy going
- *Camouflage ability*
  - solar
  - bright
  - mysterious
  - beautiful
  - colorful
- *Self-preserving*



- strong
- athlete
- organized
- *Man*
  - D'Artagnan of the 3 Musketeers
- *Woman*
  - femininity
- *Fish species*
  - swordfish
  - clownfish
  - shark
  - tuna
  - sardine
  - dolphin
- *Environmentally conscious*

#### Selected responses

##### *Positive:*

- "...tuna can be compared to an athlete, because it is a very strong fish."
- "It came to my mind immediately the swordfish associated with D'Artagnan of the 3 Musketeers."
- "It could be a pretty quiet person, organized because he knows how to follow the currents."

##### *Negative:*

- "Thank goodness that the fish do not actually speak! Because in my opinion, since we destroyed its habitat, he consider humans badly, so I see it as a being diffident towards us. He would complain!"

#### b) Free association task

*Q: What comes to mind when you think about new fish products?*

#### Key points

- *Convenience*
  - easy to cook
  - ready meals



- *Preparation*
  - recipes
- *Information*
  - ingredients
- *Taste*
- *Presentation*
- *Price*
- *Preservation*
  - fresh
  - frozen
  - tin

#### Selected responses

##### *Positive:*

- "I think about preparations ... and ready meals. "
- "I think about new way of presenting the variety of fish that I already know, prepared in different ways."
- "I can think of more pulpy fish sticks better than the ones I know, with a more intense flavour."
- "I think about new way of presenting a product still known."
- "It is always the price anyway to play an important role."

##### *Negative:*

- "I need to be sure if it is a frozen product, or fresh fish caught at the time and then frozen but unfortunately we hear all sorts of things about it."

*Q: When you see new fish species, what images comes to mind?*

#### Key points

- *Information*
  - *Package*
  - *Preparation*
    - recipe
  - *Origin*
  - *Taste*
  - *Brand*
-



- *Fish species*
  - halibut
  - tuna
  - pangasius
- *Price*

#### Selected responses

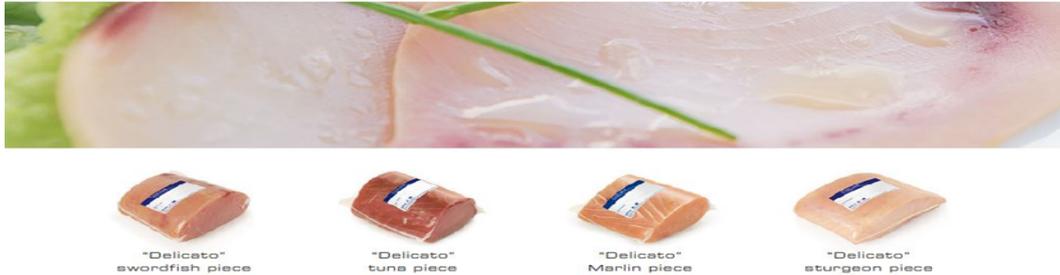
##### *Positive:*

- "I would be attracted by the package."
- "I would search for information about it..."
- "...after the purchase I would ask someone advice on how to cook it."
- "My approach is ... try to understand the origin."
- "I think if I were in this situation I would take it only if it was very similar to a fish that I ate so if I could link it to a fish that I've already eat; in this way I could imagine the taste, texture"
- "And at first sight what would you like? - The brand name."
- "The price is also important."
- "I have recently purchased the halibut, which is similar to swordfish and I think it's good."



### 3.4.4. Pictures of new fish products

#### 1. Picture - Fish (back) fillets



Comment: Generally respondents liked appearance of fish fillet. However, they would change the packaging making it more colorful and attractive for consumers, as well as put more information about the product.

#### Key points

- Appearance
- Preparation
- Packaging
- Information

#### Selected responses

##### *Positive:*

- "Yes, it looks more natural, that's what I prefer."
- "It because I suppose I could cook fish fillet as I prefer."

##### *Negative:*

- "Probably a different packaging could affect a person's choice..."
- "I would put more in evidence the label."



## 2. Picture - Octopus and shrimps for Carpaccio



Comment: Overall, respondents were not impressed with these products, mainly in terms of appearance and packaging, which they would change and add more colorful package and information on preparation method.

### Key points

- *Taste*
- *Appearance*
- *Packaging*
- *Preparation*
  - recipe

### Selected responses

#### *Positive:*

- "I tried the fish sausage and I think it is good, as the octopus Carpaccio."

#### *Negative:*

- "I don't want to see shrimp, it has not an inviting look for me, I wouldn't buy it."
- "I tried shrimps ...and I find them uneatable."
- "Assuming that the product has to be good, I would change only the packaging, for example, I would not use plastic but glass jars because I think it best preserves food."



### 3. Picture - Fish hamburgers and sausages



Comment: Generally respondents did not like these products, although some of them were curious to try them. Did not comment how they would change them.

#### Key points

- *Taste*
- *Appearance*

#### Selected responses

##### *Positive:*

- "I tried the fish sausage and I think it is good."

##### *Negative:*

- "I do not like them."



#### 4. Picture - Salmon Fillet



Comment: Respondents liked this product in terms of appearance and taste. They did not comment more.

#### Key points

- *Appearance*
- Taste

#### Selected responses

##### *Positive:*

- "If I could choose, I would choose a fillet, salmon fillet."
- "The salmon with spinach one, makes me mouth water."



5. Picture - Snacks: dried fish fillet, fried cod skin, crunchy surimi, and fish sticks



Comment: Respondents were very reluctant and traditional toward these products. They did not like the appearance of the products and thought as not part of Italian culinary culture.

Key points

- *Appearance*
- *Traditional*

Selected responses

*Positive:*

- "I buy fish sticks and surimi, they look good."

*Negative:*

- "Dehydrated products make a bad impression."
- "Probably these kinds of snacks are not part of our culinary culture."



6. Picture - Octopus and seafood salad



Octopus in a natural liquid



Octopus in oil



Cooked, vacuum-packed octopus



Sea-food salad, in natural juice

Comment: Generally respondents did not like these products in terms of packaging and label, which they would like to change for the product to be more appealing and informational.

Key points

- *Label*
- *Packaging*

Selected responses

*Negative:*

- "...if it were frozen octopus , I would not have this so negative approach. I see it in a negative way because it is vacuum packed."
- "In general packages aesthetically nice strike consumers because they create curiosity, so they should be changed."

*Q: What would you change about it?*

Key points

- *Packaging*
- *Label*

Selected responses

*Positive:*

- "For the seafood salad you could make a packaging mussel shaped. To draw attention!"



- "I will be more enticed to buy it. If in the salad of octopus, for example, there is a label which specifies that the octopus is 60-70%, 10% are pickles... is something I appreciate more than "different", "various oils."



3.4.5. Summary of new creative ideas for fish products

**Table 11.** Summary of new product ideas for Italy

PRODUCT	PACKAGING	INFORMATION	PURCHASE POINT	SELECTED RESPONSES
<ul style="list-style-type: none"> <li>● FROZEN PRODUCT OR PRODUCT STORED IN OIL OR SEAFOOD</li> </ul>	<ul style="list-style-type: none"> <li>● PRESENTATION</li> </ul>	<ul style="list-style-type: none"> <li>● TRADITION</li> </ul>		<ul style="list-style-type: none"> <li>● TRADITION</li> </ul>
<ul style="list-style-type: none"> <li>● FROZEN OR FRESH SWORDFISH STEAKS IN THE PAN</li> </ul>	<ul style="list-style-type: none"> <li>&gt; visible packaging</li> </ul>	<ul style="list-style-type: none"> <li>● ORIGIN</li> </ul>	<ul style="list-style-type: none"> <li>&gt; supermarket</li> </ul>	<ul style="list-style-type: none"> <li>&gt; "He has a recipe book for which he is reluctant to add or remove recipes: because he tends to keep the tradition of his family"</li> </ul>
<ul style="list-style-type: none"> <li>● FISH FILLET STEAMED</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Glass jar</li> </ul>			<ul style="list-style-type: none"> <li>● ENVIROMENTALLY CONSCIOUS</li> </ul>
<ul style="list-style-type: none"> <li>● SEA URCHINS</li> </ul>	<ul style="list-style-type: none"> <li>&gt; simple package</li> </ul>	<ul style="list-style-type: none"> <li>● QUALITY</li> </ul>		<ul style="list-style-type: none"> <li>&gt; "It is crucial that the swordfish has not caught in a bloody way but in respect of the animal, and that allows to have the meat more pleasant and easier to process."</li> </ul>
<ul style="list-style-type: none"> <li>● SWORDFISH FILLET</li> </ul>	<ul style="list-style-type: none"> <li>&gt; transmits lightness of the fish product</li> </ul>			<ul style="list-style-type: none"> <li>&gt; fisherman, respect the fish</li> </ul>
<ul style="list-style-type: none"> <li>● BREAD-CRUSTED FILLET</li> </ul>	<ul style="list-style-type: none"> <li>&gt; image of the ready dish</li> </ul>	<ul style="list-style-type: none"> <li>● ENVIROMENTALLY CONSCIOUS</li> </ul>		<ul style="list-style-type: none"> <li>&gt; while fisherman is fishing, think of Modugno's song about the swordfish (Lu PisceSpada)</li> </ul>
<ul style="list-style-type: none"> <li>● TRADITION</li> </ul>				<ul style="list-style-type: none"> <li>&gt; "Steamed fish and preserved with a recyclable material"</li> </ul>
<ul style="list-style-type: none"> <li>&gt; traditional cuisine</li> </ul>				<ul style="list-style-type: none"> <li>● CONVENIENCE</li> </ul>
<ul style="list-style-type: none"> <li>● CONVENIENCE</li> </ul>				<ul style="list-style-type: none"> <li>&gt; little traceability, little freshness</li> </ul>
<ul style="list-style-type: none"> <li>&gt; readymade</li> </ul>				<ul style="list-style-type: none"> <li>● HEALTH</li> </ul>
<ul style="list-style-type: none"> <li>&gt; easy to cook</li> </ul>				<ul style="list-style-type: none"> <li>&gt; Eat fish and life will be better</li> </ul>
<ul style="list-style-type: none"> <li>● HEALTHY</li> </ul>				
<ul style="list-style-type: none"> <li>● SOCIAL</li> </ul>				
<ul style="list-style-type: none"> <li>&gt; impress guests</li> </ul>				
<ul style="list-style-type: none"> <li>&gt; impress a girl</li> </ul>				
<ul style="list-style-type: none"> <li>● TASTE</li> </ul>				



3.4.6. Creative ideas for fish products per focus group

**Table 12.** Creative ideas for fish products – Focus group 1

PRODUCT	PACKAGING	INFORMATION	SELECTED RESPONSES	POINTS
<b>MINI GROUP 1</b>				<b>23</b>
<b>Frozen product or product stored in oil or seafood</b>	> visible packaging	> tradition	<i>"He has a recipe book for which he is reluctant to add or remove recipes: because he tends to keep the tradition of his family"</i>	
		> freshness		
<b>MINI GROUP 2</b>				<b>33</b>
<b>Frozen or fresh swordfish steaks in the pan</b>		> guarantee the origin of the product	<i>"It is crucial that the swordfish has not caught in a bloody way but in respect of the animal, and that allows to have the meat more pleasant and easier to process."</i>	
		> quality		
		> tradition		
		> respect to environment		
<b>MINI GROUP 3</b>				<b>16</b>
<b>Fish fillet steamed and stored in glass jars seasoned with herbs</b>	> Glass jar		<i>"Steamed fish and preserved with a recyclable material"</i>	
		> tasty		
		> healthy		

**Table 13.** Creative ideas for fish products – Focus group 2

PRODUCT	PACKAGING	INFORMATION	POINTS	
<b>Jar of sea urchins</b>				<b>24</b>
	> Jar	> origin		
> fresh				
> impress guests				
<b>Swordfish fillet</b>				<b>24</b>
	> simple package			
> fresh	> transmits lightness of the fish product			
> healthy				
<b>Bread-crust fillet ready to cook</b>				<b>24</b>
	> image of the ready dish			
> readymade				
> easy to cook				
> impress a girl				



### 3.5. Spain

#### 3.5.1. Overall summary

Spanish respondents were very positively oriented towards fish products. They are mostly concerned about the convenience of preparing the product and new experience and enjoyment that can come out of this practice. Fresh fish products are always good but they are not afraid to go and try the assortment of readymade fish meals. Thus, they like convenience products as cooked octopus and are also considering products like snacks and fish burgers as way of introducing fish products to children. They are quite conscious when it comes to the environment and sustainability of the aquaculture industry pointing out that new fish species could help resolve some of the environmental issues related to overfishing.

When confronted with the new fish products, respondents found that the visual appearance of the product, packaging and information related to preparation method should always be emphasized. More specifically, they are especially interested in cooking methods that could open new horizons and experiences in terms of taste and enjoyment. Spanish respondents pointed out that we as a society should be moving from eating meat and eating more fish, as it is a healthier option, and as fish is the meat of the future. Thus, they agree that farmed fish could be a good solution for decreasing meat consumption.

Spanish respondents had a few interesting ideas in the creative part (see Table 14, 15, and 16). These ideas were mainly related to the packaging and presentation of the fish products. One of the interesting ideas was a packaging in a form of a golden tray that could emphasize fish qualities. Further, respondents thought as convenient and attractive to cut the fish into small cubes in terms of both better presenting the fish product and being more convenient. Another interesting idea was related to the production of fish snacks or fish sticks in the form of fish to be more appealing for children. Respondents also mentioned an idea that it could be valuable producing fish in the liquid or mashed form for the elderly consumers and vegetarians, so that they can make soups or drink fish.

#### Key points

- *Innovative*
- *Convenience*
- *Appearance*
- *Packaging*
- *Preparation*
- *Presentation*
- *Enjoyment*
- *New experiences*
- *Taste*
- *Health*
- *Kids*
- *Fish species*
- *Price*
- *Environmentally conscious*



### 3.5.2. New food products in general

*Q: Can you give example of new food products that you bought lately?*

#### Key points

- *Innovative food*
  - sushi box (fish in form of surimi sticks)
  - spider crab cream soup
  - vegetable oil spray
- *Preparation*
- *Health*
- *Packaging*
- *Presentation*
  - color
  - photo
- *Enjoyment*
  - surprise
  - memories
- *New experiences*
- *Price*
- *Convenience*
  - ready-to-eat
  - quick and easy
  - speed
- *Taste*

#### Selected responses

##### *Positive:*

- "I bought an oil spray at an American store, it is not olive oil nor sunflower oil, it is called pan, it is used for griddle/pan, I like it a lot."
- "Lately, besides trying... the preparation is more relevant."
- "But this need has taught to me to look for healthier products."
- "...you go to the supermarket and see a packaging that catch your attention."
- "The color... or the product photo...It should be eye-catching."
- "We have tried lately the cream soups from Mercadona, they are ready-to-eat... "



- "...but it is not something you would have on a daily basis, it is like giving yourself a treat."
- Negative:
- "It was really easy and quick to prepare all dishes but we didn't like it very much."
- "The composition, it was like fish agglomerate, you don't have a piece of salmon, or a piece of hake, or a piece of monkfish... it was like surimi sticks. They were tasteless."

### 3.5.3. Exploration of new fish products

a) Personification associations – giving human characteristics to the fish

*Q: If fish would be a person, what would he or she look like, behave...say and do...*

#### Key points

- *Flexible*
  - sporty
  - slim
- *Camouflage ability*
  - dress up in different ways
  - cool
- *Self-preserving*
  - serious
  - good looking
  - professor
- *Social*
  - friends
- *Man*
- *Healthy*
  - fresh
- *Convenience*
  - easy to prepare
  - easy to eat
- *Fish species*
  - salmon
  - tuna
  - sardine



- bass
- hake
- red sea bream
- monkfish
- swordfish
- *Enjoyment*
  - luxury
- *Preparation*
- *Taste*

#### Selected responses

##### *Positive:*

- "...sporty, cool, cheerful, and slim."
- "Salmon, because you are able to dress up in many different ways."
- "I think it is a professor, a severe one."
- "We would be good friends..."
- "Bass, because of its taste, easy to prepare."
- "He would tell about the luxury we have got."
- "The fish is the base but you cook it so you can transform it into something new, you play with the product."
- "...because of its taste..."

#### b) Free association task

*Q: What comes to mind when you think about new fish products?*

#### Key points

- *Innovative*
  - sushi
  - surimi
  - coated mussels - tigers
  - frozen cod back fillets in a bag
  - seafood spread
  - fish burgers
  - cockle croquettes



- *Convenience*  
-easy to cooks
- *Preparation*
- *Taste*

#### Selected responses

##### *Positive:*

- "Surimi shaped as a spider crab leg...."
- "Frozen cod back fillets. They are available in a box, each one is wrapped in a plastic little bag. This is very convenient, they get you out of a mess, and they are very easy to prepare. "
- "It is mainly about the preparation/ cooking. A new way, a new sauce... "
- "I never buy cockles but those croquettes were really delicious."

*Q: When you see new fish species, what images comes to mind?*

#### Key points

- *Fish species*
  - panga
  - halibut
  - anchovies
- *Environmentally conscious*
- *Taste*

#### Selected responses

##### *Positive:*

- "Panga and halibut...For kids is very good, succulent, you can bread it and fry it, they eat it very well."

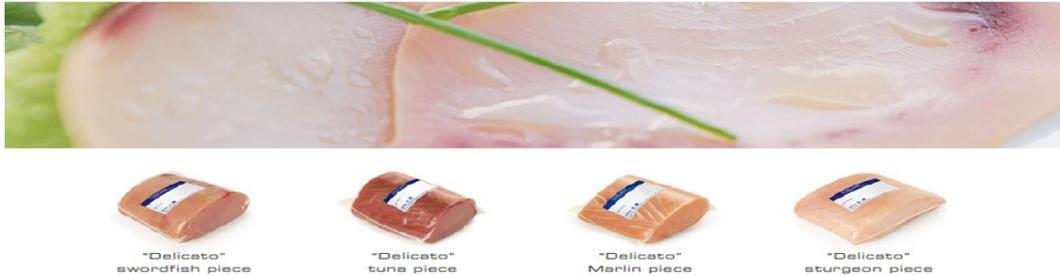
##### *Negative:*

- "At home they don't like it very much the Panga..."
- "Panga is a bad product. They feed them badly. They live in dirty water. "
- "I bought one at La Sirena (frozen food shop chain), a bag of small fishes... (anchovies), I tasted them but they were so bland..."



### 3.5.4. Pictures of new fish products

#### 1. Picture - Fish (back) fillets



Comment: Respondents liked back fillets, but they would change their packaging and label, as it is nothing new and looks like meat. Respondents agree that this change should be done in a way that catches consumers' attention and it is related to the packaging, preparation of the product and new recipes.

#### Key points

- *Appearance*
- *Taste*
- *Packaging*
- *Convenience*
- *Preparation*

#### Selected responses

##### *Positive:*

- "In general I like it, look at the back fillets!"
- "I've bought them frozen and they are great."
- "I would work on the packaging, the presentation... on variety of preparation recommendations..."
- "It is very convenient yes."

##### *Negative:*

- "This is like marinade pork back. Because of the label..."



## 2. Picture - Octopus and shrimps for Carpaccio



Comment: Overall, respondents liked these products. They saw them as eye catching, healthy, easy to make and original, something that they could enjoy. Respondents considered that the salami like octopus for Carpaccio could be appealing to children.

### Key points

- *Innovation*
- *Appearance*
- *Convenience*
- *Health*
- *Enjoyment*
- *Kids*

### Selected responses

#### *Positive:*

- "I would emphasize the innovation, like a surprise."
- "I have never tried them in Carpaccio, and I would love trying them... It looks appetizing."
- "I associate them with healthy and easy."
- "I see them more like a delicatessen."
- "All of them are quite original but this one here it is really striking, sausages, moreover for kids."



### 3. Picture - Fish hamburgers and sausages



Comment: Overall, respondents were divided regarding these products. Some respondents found them eye-catching, tasty and good for children, while others associated them with 'weird' and unhealthy products.

#### Key points

- *Kids*
- *Taste*
- *Appearance*
- *Health*

#### Selected responses

##### *Positive:*

- "For children. To encourage fish consumption within children."
- "I have tried fish hamburgers at home, and they are quite good. "
- "Fish hamburgers catch your attention."
- "Ingredients should be healthy."

##### *Negative:*

- "I would get rid of these sausages."
- "...a fish burger or a fish sausage it is quite weird, then I would check the ingredients, but it is quite striking."



#### 4. Picture - Salmon Fillet



Comment: Salmon fillets were seen as the appealing and healthy product by the respondents. However, they would consider adding information on preparation on the product making it even more appealing in terms of the expected experience.

#### Key points

- *Appearance*
- *Preparation*
- *Health*

#### Selected responses

##### *Positive:*

- "...like salmon..."
- "It is healthier..."
- "... if they say: this is prepared in this way... the recipe catch my attention, a new thing... something about the preparation... that cream, that crust on the top... you can put it right in the oven, less laborious... Seeing a different preparation would be an incentive."



5. Picture - Snacks: dried fish fillet, fried cod skin, crunchy surimi, and fish sticks



Comment: Generally, respondents liked this product in terms of convenience and the fact that they could be appealing to the children. However, they emphasized that they should not contain unhealthy ingredients as colorants and preservatives.

Key points

- *Convenience*
- *Kids*
- *Taste*
- *Health*

Selected responses

*Positive:*

- "If somebody comes home... I have fish snacks. You take them off, you put them in a pan, and you have them ready in a moment."
- "My kids love those fish sticks shaped into little fishes."
- "Yes like surimi sticks..."
- "Well, they will realize after the first nibble that it is fish."

*Negative:*

- "They should not have colorants and preservatives."



## 6. Picture - Octopus and seafood salad



Octopus in a natural liquid



Octopus in oil



Cooked, vacuum-packed octopus



Sea-food salad, in natural juice

Comment: Respondents liked transparent packaging of the products and they emphasized the convenience of having precooked octopus in the store. Even though octopus was not seen as a healthy product, this could be changed with preparation of different dishes.

### Key points

- *Packaging*
- *Convenience*
- *Health*
- *Preparation*

### Selected responses

#### *Positive:*

- "I would put a packaging which is similar the one of the octopus currently. A transparent little tray."
- "Octopus is very interesting. Because we don't know how to boil it at home. It is very hard. This is more convenient. "

#### *Negative:*

- "It is very difficult to cook octopus, you have to freeze it, boiling it, cleaning it... I usually buy it cooked.""
- "Maybe it is not very healthy, but... you put on a potato and a bit of paprika... and you have an appetizer."



3.5.5. Summary of new creative ideas for fish products

**Table 14.** Summary of new creative ideas for Spain

PRODUCT	PACKAGING	INFORMATION	PURCHASE POINT	SELECTED RESPONSES
<ul style="list-style-type: none"> <li>● <b>SWORDFISH FILLET</b></li> </ul>	<ul style="list-style-type: none"> <li>● <b>CONVENIENCE</b></li> </ul>	<ul style="list-style-type: none"> <li>● <b>CONVENIENCE</b></li> </ul>	<ul style="list-style-type: none"> <li>&gt; supermarket</li> </ul>	<ul style="list-style-type: none"> <li>&gt; <i>"Happiness can be complete."</i></li> </ul>
<ul style="list-style-type: none"> <li>● <b>TUNA FILLET SLICED LIKE MEDALLIONS</b></li> </ul>	<ul style="list-style-type: none"> <li>&gt; individual packaging</li> </ul>	<ul style="list-style-type: none"> <li>&gt; smell before buying, heating</li> </ul>	<ul style="list-style-type: none"> <li>&gt; fish market</li> </ul>	<ul style="list-style-type: none"> <li>&gt; <i>"Recover your figure while eating in a healthy and tasty way."</i></li> </ul>
<ul style="list-style-type: none"> <li>● <b>TUNA TARTAR (ONE PIECE)</b></li> </ul>	<ul style="list-style-type: none"> <li>&gt; transparent packaging with cover where you can smell the product</li> </ul>	<ul style="list-style-type: none"> <li>● <b>PREPARATION</b></li> </ul>		<ul style="list-style-type: none"> <li>&gt; <i>"If you compare with meat, fish is more complete, easier to combine and it has many health benefits."</i></li> </ul>
<ul style="list-style-type: none"> <li>&gt; pickle, soy sauce</li> </ul>	<ul style="list-style-type: none"> <li>&gt; vacuum plastic packaged, with plastic tray for the microwave</li> </ul>	<ul style="list-style-type: none"> <li>&gt; cooking instructions</li> </ul>		<ul style="list-style-type: none"> <li>&gt; <i>"Totally clean, without bones and pre-sliced. "</i></li> </ul>
<ul style="list-style-type: none"> <li>● <b>SALMON, TUNA CUT IN SMALL CUBES OR MASHED FOR SOUPS OR LIQUID TO DRINK</b></li> </ul>	<ul style="list-style-type: none"> <li>&gt; serve it in the same tray</li> </ul>	<ul style="list-style-type: none"> <li>&gt; recipe</li> </ul>		<ul style="list-style-type: none"> <li>&gt; <i>"After knowing the fish in the sea and learning how to cook it, fish doesn't seem so bad!!"</i></li> </ul>
<ul style="list-style-type: none"> <li>● <b>FISH BURGERS, FISH STICKS</b></li> </ul>	<ul style="list-style-type: none"> <li>&gt; package with small cubes</li> </ul>	<ul style="list-style-type: none"> <li>● <b>HEALTH</b></li> </ul>		
<ul style="list-style-type: none"> <li>&gt; no bones</li> </ul>	<ul style="list-style-type: none"> <li>&gt; terta brick pack - liquid fish for soups</li> </ul>	<ul style="list-style-type: none"> <li>&gt; omega 3</li> </ul>		
<ul style="list-style-type: none"> <li>● <b>VARIETY</b></li> </ul>	<ul style="list-style-type: none"> <li>&gt; bottle - fish to drink</li> </ul>	<ul style="list-style-type: none"> <li>● <b>NUTRITION</b></li> </ul>		
<ul style="list-style-type: none"> <li>&gt; possibility of different combinations with vegetables, cheese, herbs, etc.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; easy to prepare: remove from the tray and put in a dish</li> </ul>	<ul style="list-style-type: none"> <li>● <b>QUALITY</b></li> </ul>		
<ul style="list-style-type: none"> <li>● <b>CONVENIENCE</b></li> </ul>	<ul style="list-style-type: none"> <li>● <b>PRESENTATION</b></li> </ul>	<ul style="list-style-type: none"> <li>&gt; <b>TASTE</b></li> </ul>		
<ul style="list-style-type: none"> <li>&gt; readymade</li> </ul>	<ul style="list-style-type: none"> <li>&gt; golden tray</li> </ul>			
<ul style="list-style-type: none"> <li>&gt; easy to prepare/cook</li> </ul>				
<ul style="list-style-type: none"> <li>&gt; already clean</li> </ul>				
<ul style="list-style-type: none"> <li>● <b>TASTE</b></li> </ul>				
<ul style="list-style-type: none"> <li>● <b>HEALTH</b></li> </ul>				
<ul style="list-style-type: none"> <li>● <b>ENJOYMENT</b></li> </ul>				



3.5.6. Creative ideas for fish products per focus group

**Table 15.** Creative ideas for fish products – Focus group 1

PRODUCT	PACKAGING	INFORMATION	SELECTED RESPONSES	POINTS
<b>MINI GROUP 1</b>				<b>24</b>
<b>Swordfish fillet</b>	> individual packaging		> "Happiness can be complete."	
> available completely ready-to-eat with a range of 20 different tastes: only heat!	> Cover: Smell! Open!! (also, transparent window)	> smell before buying, heating	> "Recover your figure while eating in a healthy and tasty way."	
> individual portions	> Lateral 1: Sword Fish with Fines Herbs	> health		
> griddling is possible	> Lateral 2: Sword Fish vs. Beef (nutritional comparison)	> taste		
> comparing fats with a fillet steak		> variety: range of 20		
> a tab in the packaging to smell the product in advance				
> with different cheese (cabrales, mojo picón)				
<b>MINI GROUP 2</b>				<b>28</b>
<b>Tuna fillet sliced like medallions</b>		> Cover: HEALTHY*– Omega3 (also, a transparent window)	<i>"If you compare with meat, fish is more complete, easier to combine and it has many health benefits."</i>	
> already clean	> vacuum plastic packaged, a plastic tray, so you can put it in the microwave	> sauce	<i>"Totally clean, without bones and pre-sliced."</i>	
> good price	> easy opening system	> vegetables are visible through a transparent window		
> ready sliced, like medallions		> Lateral 1: Cooking instructions		
> complemented (garnish) with: potatoes, vegetables, a sauce...		> Lateral 2: Recipe – EASY PREPARATION, 5 minutes		
<b>MINI GROUP 3</b>				<b>18</b>
<b>Tuna tartar (one piece)</b>	> in golden tray	> easy to prepare: remove from the tray and put in a dish		
> cold serving	> can serve it in the same tray	> text on the product elaboration		
> seasoning products, e.g. soy sauce (complementary)		> maximum 1 week expiring date		
> Soy sauce		> Competitive price		
> pickle sauce		> Low calorie		
> toast		> convenient		
		> quality		



**Table 16.** Creative ideas for fish products – Focus group 2

PRODUCT	PACKAGING	INFORMATION	AD	SELECTED RESPONSES	POINTS
<b>MINI GROUP 1</b>					<b>20</b>
<b>Salmon, tuna cut in small cubes</b>	> package, small cubes	> tasty			
> available cut in small cubes for brochettes, etc	> tetra brick pack - liquid fish for soups	> healthy			
> mashed fish, in a tetra-brick, to drink or making a soup	> bottle - fish to drink	> convenient			
> home delivering					
<b>MINI GROUP 2</b>					<b>30</b>
<b>Fish burgers, sticks</b>	> attractive	> good information	<b>Child: I don't like it</b>		
> education about how fish is good to eat	> convenient		Mother: Eat it!!!		
> no bones			Father: It is fish. It is good!		
> tasty			Mother: OK, lets go eating out.		
> healthy			<b>Child: Great!!!!</b>		
			<b>(McDonald's) – Happy Meal</b>		
			<b>Sign with a fish: Today's Promotion</b>		
			Mother: Would you like one of these?		
			<b>Child: OK</b>		
			<b>Child: MMM! Delicious!!</b>		
			Mother: Do you like it?		
			<b>Child: I want another helping</b>		
			Father: Well. It is the same fish as the one at home		
			<b>Child: Yeeeee!! I like fish now!!</b>		
			Father: Well!!! Lucky for me!!!!		
<b>MINI GROUP 3</b>					<b>24</b>
<b>Swordfish</b>			<i>SHIP</i>	<i>"After knowing the fish in the sea and learning how to cook it, fish doesn't seem so bad!!"</i>	
> being involved with the product			<i>Come here little shrimps!</i>		
> cooking			<i>Sword fish, where are you?</i>		
> being involved with the elaboration			<i>&gt; After a long fishing day, we go home to prepare our dinner. We will surprise our family!!!</i>		
			<i>GIRLS COOKING</i>		
			<i>After knowing the fish in the sea and learning how to cook it, fish doesn't seem so bad!!</i>		



### 3.6. Conclusion

The focus groups conducted in the largest EU markets for cultured fish (*i.e.*, Spain, France and Italy) and important growing EU markets for cultured fish (UK and Germany) show that consumers are open towards new fish products from the selected fish species. They support the view that the fish is the meat of the future and that society should be moving more from eating meat to consume fish on more regular basis. This view is especially strong in Spain. In general, most of the investigated countries are fully aware of the fact of the overfishing and endangered wild fish species. Thus they are quite environmentally conscious and would like to have a good alternative to wild caught species. This alternative to wild fish species could be farmed fish species, and consider that fish farms are quite important for the future of fish consumption. This of course will be only possible if the fish species are ethically treated in terms of its rising and feed. Respondents see fish as an ‘animal’ that needs protection and animal welfare. Thus, in their opinion fishes as animals should be treated carefully, correctly as well as protected from possible pain and other major inconveniences, as overcrowded pools. This opinion is particularly evident in Germany and France. The previous observation is very much related to the other fact that most of the respondents would like to know which fish species are used in farming as well as about their production. Here, the preferences regarding different fish species lay mostly with the salty water fish species. In connection to previous, respondents are also very health orientated and motivated to engage in healthy behaviours like consuming fish. Hence, they are quite motivated to search, attend, and comprehend health and nutritional information related to fish products.

When observing the new fish products in general, respondents from France, Spain and UK are much more adventurous and innovative when it comes to experimenting with fish products and combining them with different accompaniments, like vegetables, sauces, dips and marinades. They are quite open to new tastes and possibilities. On the other hand, respondents from Germany and Italy seem to be more traditional and conservative when it comes to new fish products. They prefer ‘pure’ fish fillets with no additives and coating (*e.g.*, bread crumbs), but would like to have in additional sachet herbs or spices or even some marinades that they could use if they ‘feel like it’. The one thing that respondents from all the countries agree on is convenient fish product option. This convenience is first of all related to the packaging of the product that could be used in cooking of the product. Germany gave one of the most interesting proposals in a way of a cooking bag in which fish product is stored and that can be further used for the preparation of the same. Similar proposals came from UK and an aluminium plate that could be used both as a package and cooking plate. The use of package in terms of more convenient cooking and preparing the dish stands out in all countries. They all prefer package that would allow physical product to be visible, and package should be colourful possibly with the image of the fish species involved. Some of the respondents suggested some very clever solutions like a plate that looks like a wheel and has compartments with different dishes inside. Moreover, they all agree that package should always be accompanied with the possible recipes and suggestions for cooking.

UK and Spain also had some of the good suggestions for the physical product where they have proposed that might be convenient to show a piece of fish like a roast, to be used for special occasions, or to cut fish in small cubes that could be used in small toasts like appetizers. The presentation of the fish product was also considered as very important, and several suggestions were given as presented thin sliced fillets like scales. But, also fish products like liquid or mashed fish for vegetarian people or people suffering from some diseases like diabetes were recommended. Other proposals for the physical fish product also include the use of different shapes of fish products that could be appealing to the consumer and children, like presenting fish sticks in shape of fish among others. Other suggestions were also related to the colour of some of the products like fish snacks, which could be coloured in order to be more appealing.



Overall, the creative part of the focus groups resulted in some of the very interesting and possible solutions for the new fish products that were presented in previous Tables of this section. From the ideas fashioned in this creative part of the focus groups several ideas have been chosen to carry further in the expert interview part. More specifically eight ideas have been chosen as having the higher likelihood to be used in the new product development of fish products. These ideas have been listed below.

**Table 17.** Final choice of creative ideas for new fish products

Country	Idea
Germany	Frozen fish fillet that is seasoned or marinated either traditional, Italian, Provence or Asian. The product is produced environmentally sustainable (containing ASC hallmark). It is labeled as a premium product; the country of origin is EU. The product is in a sliding packaging, transparent vacuum packed bag made of recyclable material, with clear pictures of the unfrozen product on the cardboard sleeve.
UK	Fresh fish back fillet that looks like a roast in tray or bag that can be prepared in an oven or barbecue. This fish is accompanied with dips, sauces and dressings. The product is produced environmentally sustainable (containing ASC hallmark). It is labelled as a premium product, the country of origin is EU. The packaging is transparent bag or a tray where fish is laid and covered with transparent plastic.
Spain	Fresh ready to eat meal with fish fillet with different cheese and fine herbs. The fish is seasoned. This product is pre-cooked and can be prepared in the microwave in 5 minutes. The product is produced environmentally sustainable (containing ASC hallmark). It is labeled as a premium product; the country of origin is EU. The packaging is individual with transparent window and a lid on the top under which you can smell the product.
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 (containing ASC hallmark). It is labeled as a premium product; the country of origin is EU. The packaging is transparent vacuum packed or in a plastic tray with transparent plastic on the top.
Italy	Bread crusted crispy frozen fish product with a topping of vegetables and sauce made by the traditional recipe. This fish product is medium seasoned and easy to prepare in the oven or the microwave in the original packaging. The product is produced environmentally sustainable (containing ASC hallmark). It is labeled as a premium product; the country of origin is EU. The packaging is a tray with transparent lid where image of the ready dish is presented.
France	Fresh fish Carpaccio that can be used as starter for a hot meal or as sandwich filling. This Carpaccio will be seasoned with ginger and chili and presented as scales of the fish. The product is produced environmentally sustainable (containing ASC hallmark). It is labeled as a premium product; the country of origin is EU. 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 rich different sections.
France	Botarga <sup>2</sup> made of grey mullet and sliced like medallions. Botarga is a Mediterranean delicacy of salted, cured fish roe, typically from grey mullet or tuna. The product is similar to the softer cured mullet roe, karasumi from Japan and East Asia. The product is produced environmentally sustainable (containing ASC hallmark). It is labeled as a premium product; the country of origin is EU. The packaging is a tray with the transparent film on the top and product can be served in the same tray.
Spain	Liquid fish to make soups or drink. Liquid fish for soups is in mashed form. These products are without additives and thus highly suitable for diabetic and vegetarian people. The product is produced environmentally sustainable (containing ASC hallmark). It is labelled as a premium product; the country of origin is EU. The packaging for soups is tetra brik, while liquid fish for drinking is in the plastic bottle.

<sup>2</sup> Botarga was not mentioned in the focus groups from France per se, but was indicated by the respondents as a gourmet, luxury product with exotic taste that can be used as a hors d'oeuvre. Thus, it has been decided that Botarga should be added to the list of ideas as it most resembled the described product.



#### 4. Description of the results from the expert interviews per country

This part provides the expert opinions with regard to feasibility of ideas for new fish products collected in the previous phase with consumer focus groups (see Table 17 and section 3). The main objective of this phase was to explore possibility of creating new fish products from the ideas gathered from the focus groups from five focal fish markets (*i.e.*, UK, Germany, Spain, France and Italy).

The expert interviews have been conducted by using the structured questionnaire (see Appendix 2) in each of the five countries, UK, Germany, Spain, France and Italy. More specifically, four expert interviews have been conducted in UK, one in Germany, two in Spain and three in France and Italy. For privacy reasons the results from Germany are presented together with the results from Spain. A combination of the results of those two countries is chosen, since the results are most alike.

In this section the results of the expert interviews with respect to new product ideas attractiveness, uniqueness, acceptable price range, possible fish species and type of distribution channel have been discussed. The main results have been presented and described in each of the five countries.

##### 4.1. United Kingdom

Experts from UK found new product ideas related to Carpaccio, frozen fish fillet, fresh fish back fillet, and ready to eat meal with cheese interesting ideas. Liquid fish idea was also thought as having potential as there is a gap in UK market for this kind of product, especially for those people with health issues. Fish sausages and hamburgers were seen as a good product not only for children, but for vegetarians as well. Fresh back fillet was considered as an innovative idea, due to the concept and packaging. Experts also liked cooking bag from the frozen fish fillet as a good packaging option for the fish products. The prices for different product varied from 2.99 pounds for 6 fish sausages to 7-8 pounds for a small piece of Botarga (see Table 19). All fish species were considered by the experts for development of new fish products.

Experts pointed out that the technical feasibility will not be an issue for these product ideas, and that they would not involve any change of the product lines. However, they thought that consumer panel tastings are necessary prior to launching of the products, and sample handing (*i.e.*, as a product's promotion strategy) when launching the products. This was especially thought important for the readymade fish product. Generally, experts considered ideas as good, although some of them need some brushing up, like fish fillet with cheese. Finally, experts proclaimed that these ideas have a potential to make a difference in the UK fish industry and that might potentially increase UK fish consumption.



**Table 18.** Expert opinions from UK on new product ideas.

Product idea	Idea attractiveness	Idea innovativeness	Price	Fish species	Distribution channels	Technical feasibility	Change of product lines
<b>Frozen fish fillet (Germany)</b>	> good idea > added value packaging and sauces > better fresh	> packaging new > convenient packaging > mass market	> 3-4 pounds per portion	> Grey mullet > Halibut > Pikeperch	> supermarket > catering > hotels > fish monger	> no problem	
<b>Fresh fish back fillet (UK)</b>	> attractive idea	> packaging new > good concept > clever, effective	> 4-10 pounds per portion	> Grey mullet > Halibut	> supermarket > catering	> no problem	> no change
<b>Ready to eat meal, fish fillet with cheese and fine herbs (Spain)</b>	>good idea cause of cheese > smelling a product not attractive	> unusual, new > gap in a market	> 3-4.5pounds per portion	> Grey mullet > Halibut	> supermarket > fish monger > gastro pub	> consumers could have an issue with microwave	
<b>Sausages and fish hamburgers (Spain)</b>	> good idea > no bones good > should be chilled	> not new > gap in a market	> 2.99-4.2 pounds for 6 sausages	> all	> supermarket > fish monger > gastro pub > convenient store > delicatessen	> no problem	> no change
<b>Crispy frozen fish product (Italy)</b>	>attractive, without topping	> novel > mass market	>2 pounds per portion	> Grey mullet > Halibut > Meagre >Wreckfish > all	> supermarket > some restaurants	> no problem	
<b>Fish Carpaccio (France)</b>	>high-end product	> innovative, different flavors > good packaging > niche market	> 5-6 pounds per portion	> Grey mullet > all	> supermarket > specialty store > delicatessen > high-end supermarket > sandwich store		
<b>Botarga (France)</b>	> high-end product > taste problem > educate consumers	>good packaging >niche market	> 7-8 pounds for a small piece	> Grey mullet	> specialty store > delicatessen > fish monger > restaurants		
<b>Liquid fish (Spain)</b>	>good idea	> novel > gap in the market, protein intake, health issues	> 5 pounds per bottle	> all	> supermarket > fish monger > delicatessen		
<b>Overall</b>							
> <b>Ideas</b>	> Good ideas are Carpaccio, fish fillet with cheese, frozen fish fillet, and liquid soup						
> <b>Profits for fish industry</b>	> Above mentioned ideas would make profits for the fish industry, because of the sustainability						
> <b>Fish consumption</b>	> Above mentioned ideas would potentially increase fish consumption						



4.2. France

Experts in France considered presented ideas as quite interesting and with the potential for the fish industry and increase of fish consumption. The ideas that came up as the most interesting were Botarga, Carpaccio, back fish fillet, ready meal and liquid fish soups (see Table 19).

**Table 19.** Expert opinions from France on new product ideas.

Product idea	Idea attractiveness	Idea innovativeness	Price	Fish species	Distribution channels	Technical feasibility	Change of product lines
<b>Frozen fish fillet (Germany)</b>	> interesting idea > fillets individually wrapped	> package could make a difference	> 3-4 Euros per portion > 5-8 Euros per kg	> Grey mullet > Halibut > Pikeperch >Wreckfish > Meagre	> supermarket > restaurants > convenient store > catering	> no problem	> no change
<b>Fresh fish back fillet (UK)</b>	> attractive > quality product	> novel > fun recipe	>6-8 Euros per portion >15-18 Euros per kg	> Grey mullet > Halibut > Pikeperch > Meagre	> supermarket > restaurants >fish shop > catering > convenient store > delicatessen	> no problem	> no change if similar concept
<b>Ready to eat meal, fish fillet with cheese and fine herbs (Spain)</b>	> attractive for cheese > convenient >dieting women > sports people	> not new, unique > smell not good idea	>4-8 Euros per portion	> Grey mullet > Halibut > Pikeperch >Wreckfish > Meagre	> supermarket > restaurants >fish shop > catering > convenient store > delicatessen	> more handling > no problem	> no change
<b>Sausages and fish hamburgers (Spain)</b>	> should have added value > fresh	> not new	>4-6 Euros per portion	>Meagre > Halibut > Pikeperch	> supermarket > catering > delicatessen	> no problem	> no change
<b>Crispy frozen fish product (Italy)</b>	> good for dieting people	> not new > good recipe	> 2.90-6 Euros per portion	> Meagre > Halibut > Pikeperch > Grey mullet	> supermarket >specialty store > convenient store > delicatessen	> no problem	> no change
<b>Fish Carpaccio (France)</b>	> good idea > chili can be issue	> packaging innovative > small niche	>5-8 Euros per portion	> Meagre > Grey mullet > Greater amberjack	> supermarket > specialty store > delicatessen > restaurants > catering > hotels	> no problem	> no change
<b>Botarga (France)</b>	>attractive	> not new > packaging novel, convenient	>6-10 Euros per portion	> all	> supermarket > specialty store > delicatessen > convenient store > restaurants	> no problem	> no change
<b>Liquid fish (Spain)</b>	> good idea for soups	> not new	> 2.5-8Euros per bottle	> all	> supermarket > specialty store > fish shop > restaurants > catering > delicatessen > hospitals > old people homes	> no problem	> no change
<b>Overall</b>							
> <b>Ideas</b>	> Good ideas: Botarga, Carpaccio, back fish fillet, ready meal and fish soups						
> <b>Profits for fish industry</b>	> These ideas could be good for the fish industry						
> <b>Fish consumption</b>	> Also could increase fish consumption						



Experts from France especially liked the packaging concept of the cooking bag, as well as the packaging of the back fish fillet, seeing it as convenient and attractive to consumers. They also liked the idea of the ready meal with cheese seeing that could have some potential in the market, especially for the dieting women and sports people. Liquid soups were seen as a good concept for people who need extra proteins and have health issues, but also as a delicatessen product that could be used in different dishes. The prices varied depending on the product and were between 2.5-8 Euros for a liquid soup until 6-10 Euros for a Botarga. Distribution channels were quite varied and experts mentioned supermarkets, specialty stores, fish shops, restaurants, catering services, delicatessen shops, as well as hospitals and old people homes



### 4.3. Italy

Experts from Italy found some of the ideas attractive for the Italian consumers, namely fish sausages and hamburgers and fish back fillet. They considered that fish sausages and hamburgers could help decrease meat consumption and that these products should be a part of the Mediterranean diet. Experts found packaging of frozen fish fillet in a form of a cooking bag quite interesting (see Table 20).

**Table 20.** Expert opinions from Italy on new product ideas.

Product idea	Idea attractiveness	Idea innovativeness	Price	Fish species	Distribution channels	Technical feasibility	Change of product lines
<b>Frozen fish fillet (Germany)</b>	>attractive packaging > need information on traceability and origin	> not new, recipes make difference > medium-high market	> 9.5-15 Euros per kg	> Meagre >Wreckfish > Greater amberjack	> supermarket > specialty store >convenient store > restaurants > catering	> no problem	> no change
<b>Fresh fish back fillet (UK)</b>	> attractive	> unique	> 10-15 Euros per kg	>Wreckfish > Greater amberjack	> supermarket >convenient store > restaurants >fish shop	> no problem	> no change
<b>Ready to eat meal, fish fillet with cheese and fine herbs (Spain)</b>	> cheese could be a problem	> unique recipe	> 10-12 Euros per kg	> Halibut > Greater amberjack > all	> supermarket > specialty store > convenient store	>could be a problem	> no change
<b>Sausages and fish hamburgers (Spain)</b>	> attractive, Mediterranean diet	> not new	> 10-15 Euros per kg	>Wreckfish > Greater amberjack > all	> supermarket > specialty store > convenient store	> no problem	> no change
<b>Crispy frozen fish product (Italy)</b>	> if crust good attractive	> not new > market saturated	> 5-10 Euros per kg	> Meagre >Wreckfish > Greater amberjack	> supermarket > specialty store > convenient store	> no problem	> no change
<b>Fish Carpaccio (France)</b>	> high-end product	> unique packaging	>7-20 Euros per kg	> Meagre >Wreckfish > Greater amberjack	> supermarket > specialty store > convenient store	> no problem	> no change
<b>Botarga (France)</b>	> high-end product > niche market	> good idea for medallion shape	>18-25 Euros per kg	> all	> supermarket > specialty store > convenient store	> no problem	> no change
<b>Liquid fish (Spain)</b>	> soup attractive, drink not	> unique concept			> supermarket > convenient store	> no problem	> no change
<b>Overall</b>							
> <b>Ideas</b>	> Good ideas: Sausages and hamburgers; Bad ideas: fish drink, Carpaccio, ready meal with cheese						
> <b>Profits for fish industry</b>	>Ideas that are considered good could generate profits for the fish industry						
> <b>Fish consumption</b>	>Fish consumption would not increase						

Liquid soups were also found as a good idea, while liquid fish drink was considered as a problematic product. Likewise, ready meal product was considered as a challenging product due to the cheese that accompanies this product. Carpaccio and Botarga were thought as the high-end products for a niche market. Nevertheless, Carpaccio was also seen as a *démodé* product. Prices ranged from 5-10 Euros per kilo of a crispy frozen fish product to 18-25 Euros per kilo of Carpaccio. Distribution channels for these products were including supermarkets, specialty stores, convenient stores, restaurants and catering services.



Generally, presented ideas are seen as having a potential for the fish industry to increase profits. However, experts thought that these products could increase fish consumption in Italy as it is already high.

#### 4.4. Spain and Germany

Experts from Spain considered that generally there is a need for more fresh fish products and that the product idea regarding the frozen fish fillet is an interesting idea, but that the fillet should be fresh. Thus, they preferred the idea of the fresh fish back fillet. The packaging idea of a cooking bag was considered as innovative and as an added value to a product. Ready to eat meal with cheese was seen as both interesting product idea that should be explored more in depth and as a problematic idea due to the cheese and consumer reactions of combining fish fillet with cheese. The packaging of this product has been perceived as attractive. Sausages and hamburgers were thought as important and convenient offer for the Spanish market and that should have a higher content of fish if marketed for the children. On the other hand crispy frozen fish product was seen as the product that requires sampling, while Carpaccio and Bortago have been considered as products for a special customer with required taste. The prices ranged from 2-3 Euros for a package of sausages to 4-10 Euros per portion of Carpaccio (see Table 21). Distribution channels for these product ideas were seen as quite diverse including supermarkets, specialty stores, gourmet stores, catering services, hotels and even schools.

Experts declared that the technical feasibility of the products would be no problem and that it would not involve any change in the existing product lines. In general, experts did not consider these ideas as overly innovative and stated that it is a pity to process too much high quality fish and that the higher accent should be on the fish itself. Experts stressed that higher accent should be on sustainability, product quality, healthiness, and very fresh fish in order to increase profits of aquaculture industry. They also considered that fish consumption could increase due to the wider choice of fish products.



**Table 21.** Expert opinions from Spain on new product ideas.

Product idea	Idea attractiveness	Idea innovativeness	Price	Fish species	Distribution channels	Technical feasibility	Change of product lines
<b>Frozen fish fillet (Germany)</b>	> good idea > should be fresh > market saturated	> not new, in fresh version exists > convenient > innovative cause of marinade	> 3-5 Euros per portion	> Meagre >Wreckfish > Greater amberjack > Halibut >Pikeperch	> supermarket >hotels	> no problem	> no change
<b>Fresh fish back fillet (UK)</b>	> good idea > convenient with sauces > healthy	> special customers > not new > packaging (i.e., cooking bag added value)	> 5-14Euros per portion	> Meagre >Wreckfish > Greater amberjack > Halibut >all	> supermarket > hotels > specialty stores	> no problem	> no change
<b>Ready to eat meal, fish fillet with cheese and fine herbs (Spain)</b>	>attractive, cheese could be a problem > potential if producers are found	> innovative, should be explored > consumer reactions could be an issue	>6-8Euros per portion	>Grey mullet >Pikeperch	> supermarket > specialty stores	> could be a problem	> no change > shelf life
<b>Sausages and fish hamburgers (Spain)</b>	>good idea for kids > leftovers if not for kids > important offer > consumers do not buy it	> not new > convenient > does not work	> 2-3 Euros for 2 package	> Meagre > Greater amberjack	> supermarket > catering > schools	> no problem	> no change > higher fish content for children
<b>Crispy frozen fish product (Italy)</b>	> requires sampling > convenient	> novel > fish quality inside can be explored	>4-8 Euros per portion	> Meagre > Halibut >Pikeperch	> supermarket > catering	> no problem	> no change > shelf life, should be frozen
<b>Fish Carpaccio (France)</b>	>special segment > stable market	> unusual recipe, consumer will like it > right packaging	> 10 Euros per portion	> Meagre > Halibut >Wreckfish > all except pikeperch	> supermarket > specialty stores >gourmet	> no problem	> no change
<b>Botarga (France)</b>	> special segment > strong taste	> special consumers	> 3-8 Euros per portion	>Grey mullet	> supermarket > specialty store >gourmet >fish shops	> no problem	> no change
<b>Liquid fish (Spain)</b>	> add value to leftovers > quality product	> chef recipe, add value to a product	> few to 10 Euros	> Meagre >Wreckfish > Greater amberjack > Halibut	> supermarket > catering > restaurants	> no problem	> no change
<b>Overall</b>							
> <b>Ideas</b>	>Common ideas, product should be more diversified pity to process quality fish. Products mask quality, more fresh products						
> <b>Profits for fish industry</b>	> Fresh fish back fillet with cooking bag seen as creative idea						
> <b>Fish consumption</b>	> Accent on sustainability, quality, healthiness, very fresh fish to increase profits						
	> Fish consumption would be increased due to the wider choice						



#### 4.5. Conclusion

Experts from different countries agree that the created products are attractive and feasible ideas that have potential in the market. They consider that in overall these ideas could increase profits of fish industry due to the higher diversity of choice. On the other hand, experts have dividing opinions on increase of fish consumption based on the presented product concepts. Generally, they state that these ideas have a possible prospective if they are developed with good coordination between the fish farmers and consumer itself. Experts consider that some of the product concepts should be revised in collaboration with consumers, that is that they require product testing and sampling (see Table 22).

The product idea from Germany, *i.e.*, frozen fish fillet, was received very well among experts, but they pointed out that this product could be also in a fresh version. They particularly liked the packaging concept, *i.e.*, sliding pack with transparent bag made of recyclable material, and the idea of additional marinades and recipes. Experts saw this product as convenient and for a mass market that does not involve any change to product lines and has a good technical feasibility. All fish species have been considered for this product and the price was ranging from 5-15 Euros per kilo of the product. Distribution channels ranged from supermarkets to fish monger and catering services.

Fresh fish back fillet (*i.e.*, product concept from UK) was considered as one of the most promising ideas with a great potential that is quite feasible and does not involve no change in production lines. This product concept was thought as unique and attractive both in terms of the physical product presentation and in terms of packaging (*i.e.*, cooking bag or a barbeque tray). Experts saw it as quality and healthy product that could be sold both to the special customer and to the mass market. All the fish species have been considered and price per kilo of the product was between 15-18 Euros. Distribution channels ranged from supermarkets to fish shops and delicatessen.

Ready to eat meal with fish fillet, cheese and fine herbs was the most controversial idea. Experts were quite divided when it comes to this idea and either liked it a lot or did not. The main reason for this division in opinions was mainly due to the cheese accompaniments. Experts considered that there is a gap in the market for these kinds of convenient products, but that on the other hand in terms of technical feasibility it may involve more handling and that shelf life could be quite short. All the fish species were mentioned as a good choice for this product and the price was 10-12 Euros per kilo of the product. Variety of distribution channels has been taken into account ranging from supermarkets to gastro pubs.

Product idea from Spain related to fish sausages and hamburgers was also one of debatable ideas, mainly due to the consumer segment, which should be targeted. Some of the experts considered that this product could be a good option to use fish leftovers and in that way vaporize the fish species more. Other experts thought that this is a great idea for kids, but that should have higher content of fish and that could be developed in different forms to be more agreeable for the children. Also, some of the experts thought that this particular idea could increase fish consumption, especially among children and people who would like to switch from meat to fish products. However, some of the experts mentioned that this product should have some added value not to be perceived as over processed product and that should be part of the Mediterranean diet. All the fish species have been mentioned and price was between 10-15 Euros per kilo of the product. Distribution channels varied from supermarkets to delicatessen and gastro pubs to schools. Experts saw no problems in relation to technical feasibility and production of this product.

Some experts considered crispy frozen fish product (*i.e.*, idea from Italy) as one of the questionable ideas that requires testing and sampling. On the other hand, this product has also been seen as the convenient product that could be a good option for dieting and sports people. Opinions were divided and while some experts thought this product as novel and quality product, others saw it as mass market product. Likewise, experts from Italy pointed out that Italian market is saturated with these kinds of products. All fish species have been mentioned and price ranged between 5-10 Euros per kilo of the product. Distribution channels for



this product were mainly supermarkets and convenient stores. This product was seen as technically feasible and that its production would not involve any change.

Fish Carpaccio, the luxury idea from France, was seen by the experts as the high-end product for a special customer and for a niche market. Experts generally liked this idea and only concern involved the chili accompaniment. Experts liked the packaging and recipe idea very much. All the fish species have been mentioned and price varied between 7-20 Euros per kilo of the product. This product is seen more for the specialty stores and delicatessen, but also for sandwich stores and catering services. Product is thought both technically feasible and involving no change in production lines.

Botarga, another luxury idea from France, was considered for the special customer segment with required taste. Experts liked the medallion shape presentation of the product and packaging as well. All fish species have been considered and price was between 8-25 Euros per kilo of the product. Experts thought that the best distribution channels for this product would be specialty stores and delicatessen, among others. This product is seen as technically feasible and that does not involve changes in production lines.

Liquid fish, product idea from Spain, was seen by the experts as a very good idea when considering fish soups. Experts from France even saw it as a product with the great potential if some great chefs would be involved and add value to the product through the particular recipe. Fish drink was seen both as a good and bad idea. Some of the experts thought this idea very valuable in terms of health benefits that could bring to the consumers. More specifically, some experts thought that it could actually help elderly people to improve their protein intake and improve their health in that way. Thus old people's homes and hospitals were mentioned as one of the possible distribution channels for this product. The only explanation of the experts that thought idea of fish drink is bad was as being a strange concept. All fish species have been considered for this product concept and price was between 2.5-10 Euros per bottle. Idea was thought as technically feasible and involving no changes to production lines.

In terms of general recommendations for new product development of selected fish species, Figure 2 points to the most important drivers and barriers for the choice of the new product ideas most relevant for consumers (see also Table 22). Thus, there are several issues that need to be considered. First of all, there should be more product concepts with fresh fish involved, as fish species considered in the project are of higher quality. But also, as the product ideas related to fresh back fillet and frozen fish fillet (if frozen substituted to fresh fillet) are the best product ideas that could be considered for the mass market. These ideas could offer several benefits that meet consumers' needs in terms of product quality, innovative recipes, and cooking convenience. The freshness of the product and unaltered appearance of the fish are other aspects that could be especially valued by the consumer. Further, innovative packaging allowing for product to be seen and for convenient cooking options is also valuable. Thus, special attention should be given to the appearance and presentation of the products in terms of packaging and additional information. As the sensory aspect in fish products is quite important, products should not mask the fish taste and if some accompaniments considered (e.g., marinades, sauces) they should be added separately to the product. For example, Carpaccio and Botarga are product ideas that could be considered for a high-end niche market and specific consumer with acquired taste. Furthermore, accent of each product should be on sustainability of farmed fish production as well as on product traceability and origin as these qualities will give the consumer some assurance in terms of safety and possibility to identify where the product and fish species are coming from. Additional health, nutritional and quality claims should also be considered for the products in terms of marketing material. Thus, product idea as liquid fish could satisfy health and nutritional needs of specific consumer segments as elderly, meat avoiders and vegetarians. Other product idea of crispy frozen fresh product could be also established for the specific consumer segment, as women on diet and athletes but due to its recipe and short shelf life it needs a further development. Sausages and hamburgers and ready to eat meal are least successful product ideas, and quite controversial in terms of market acceptance.



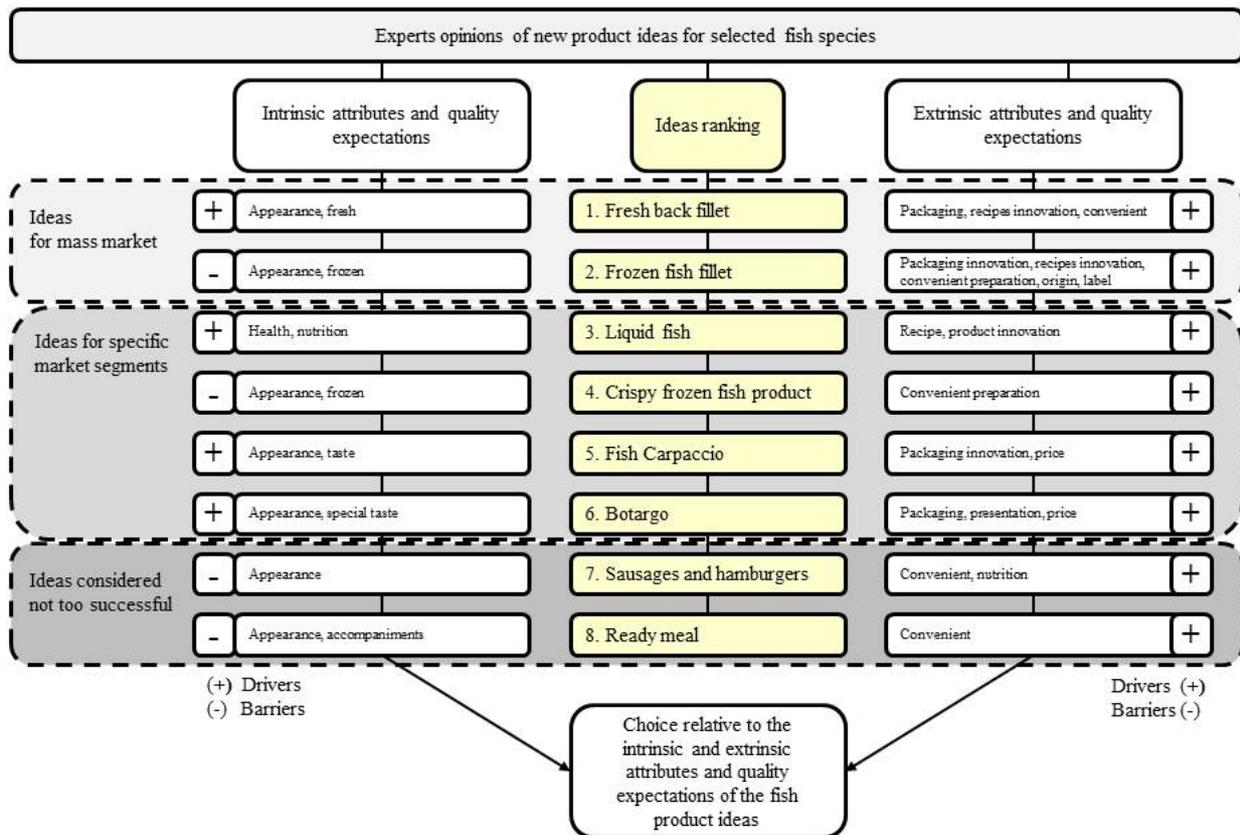
**Table 22.** Overall summary of expert opinions and ranking of new product ideas for selected fish species.

Ranking of product ideas	Idea attractiveness	Idea innovativeness	Price	Fish species (most frequently mentioned)	Distribution channels	Technical feasibility	Change of product lines
<b>1</b> <i>Fresh fish back fillet (UK)</i>	> good idea > convenient with sauces > healthy > quality product	> packaging added value > not new > fun recipe > unique idea > special customers	> 5-14 Euros per portion > 15-18 Euros per kg	> Halibut	> supermarket > specialty store > convenient store > restaurants > hotels > catering > delicatessen > fish shop	> no problem	> no change
<b>2</b> <i>Frozen fish fillet (Germany)</i>	> good idea > fresh > attractive packaging > info on traceability and origin	> not new in fresh version > recipes and marinade good > convenient > mass market	> 3-5.5 Euros per portion > 5-15 Euros per kg	> Halibut	> supermarket > specialty store > convenient store > restaurants > hotels > catering > fish monger	> no problem	> no change
<b>3</b> <i>Liquid fish (Spain)</i>	> good idea > add value to leftovers > quality product > fish drink bad idea	> novel/not new > chef recipe > protein intake > health issue > gap in the market	> 2.5 to 10 Euros per bottle	> Meagre > Wreckfish > Halibut > Pikeperch > Grey mullet > Greater amberjack	> supermarket > convenient store > catering > restaurants > delicatessen > fish monger > specialty store > hospitals > old people homes	> no problem	> no change
<b>4</b> <i>Crispy frozen fish product (Italy)</i>	> good idea > requires sampling > convenient > good for dieting people > sports people	> novel > fish quality > mass market > market saturated	> 2.9-8 Euros per portion > 5-10 Euros per kg	> Meagre > Halibut	> supermarket > catering > restaurants > convenient store > delicatessen > convenient store		
<b>5</b> <i>Fish Carpaccio (France)</i>	> special segment > high-end product > chili an issue	> innovative > good recipe > good packaging > niche market	> 5-10 Euros per portion > 4-5 Euros per 100gr > 7-20 Euros per kg	> Grey mullet > Greater amberjack	> specialty stores > delicatessen > gourmet > supermarket > convenient store > sandwich store > hotels > catering > restaurants	> no problem	> no change
<b>6</b> <i>Botarga (France)</i>	> good idea > special segment > high-end product > strong taste	> special consumers > good packaging > good medallion shape > niche market	> 6-10 Euros per portion > 3-12 Euros per 100gr > 8-25 Euros per kg	> Grey mullet	> specialty store > delicatessen > supermarket > convenient store > gourmet > fish shops > restaurants	> no problem	> no change
<b>7</b> <i>Sausages and fish hamburgers (Spain)</i>	> good idea for kids > leftovers if not for kids > important offer >	> not new > convenient > does not work > added value	> 2-3 Euros for 2 package > 4-6 Euros per portion > 10-15 Euros per kg	> Meagre > Wreckfish > Halibut > Pikeperch > Grey mullet > Greater amberjack	> supermarket > specialty store > convenient store > restaurants > catering > delicatessen	> no problem > higher fish content for kids	> no change



	Mediterranean diet				> gastro pub > schools			
8	<b>Ready to eat meal, fish fillet with cheese and fine herbs (Spain)</b>	> good idea >cheese could be a problem > good idea cause of cheese	> innovative, > smell not good idea > gap in the market	>4-8 Euros per portion > 3-4.5 pounds per portion > 10-12 Euros per kg	> Halibut > Grey mullet	> supermarket > specialty store > convenient store > restaurants > catering > delicatessen > fish monger > gastro pub	> could be a problem > shelf life > more handling	> no change

Figure 2. Drivers and barriers of new product ideas most relevant for consumers.





**Appendix 1 - Recruitment screener**

Project	7FP-KBBE-2013-GA 602131, DIVERSIFY
Job Number:	7210150505
Research type	Focus groups

Key Criteria

All Recruits: (Recruit 7 for 6 attending)

Exclusion of anyone working in sensitive industry (Q1) or recent participant in research (Q2, a/b)

Must be main or joint decision maker when grocery shopping (Q3)

Must consumed farmed fish at least once the last month (Q4-5)

3 belonging to the segment “traditional” and 3 belonging to the segment “innovators” according to their responses in Q6 and the segmentation criteria given in Q6.

3 males and 3 females per group (Q7)

Ensure a spread of age (Q8) and exclude if younger than 30 years old or older than 60 years old

Aim for good demographic mix (Q9-12)

Introduction:

Good morning / afternoon. My name is ....., I work for ..... who are currently conducting an important market research project about certain food production. They have asked us to contact people who consume certain food products. Would you be prepared to spare a few minutes?

Q1. What is your occupation? Probe for nature of job and industry

**CLOSE IF ANY MENTION OF OCCUPATIONS IN THE BELOW TABLE**

Food/ Drink	1	Close
Fishery	2	Close
Retail	3	Close
Market research	4	Close
Advertising	5	Close



Q2a. Have you attended any market research events in the past 6 months?

Yes	1	Go to Q2b
No	2	Skip to Q3

Q2b. What was the subject?

**CLOSE IF RELATED TO FISHERY PRODUCTS**

Q3. Thinking about grocery shopping, are you the main decision maker?

Yes, I'm the main decision maker	1	Continue
Yes, I am the joint decision maker alongside other family member	2	Continue
No, someone else in my family is main decision maker	3	Close

**MUST BE MAIN OR JOINT DECISION MAKER WHEN GROCERY SHOPPING**

Q4 which of the following items do you buy and consume?

Wild fish	1	
Farmed fish	2	Continue
Sea food	3	
Meat	4	
Fresh vegetables	5	
Frozen vegetables	6	
Fruit juice	7	

**PARTICIPANTS MUST CONSUME FARMED FISH**

Q5. How often would you say you consume each of the following?

	Once week or more	2 -3 times a month	Once a month	Rarely once month	than per	Never
Wild fish	1	2	3	4		5
Farmed fish	1	2	3	4		5



Sea food	1	2	3	4	5
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**FARMED FISH MUST BE CONSUMED REGULARLY (SCORE 1, 2 AND 3)**

Q6. We are interested to understand your views regarding your buying and consumption of fish products.

Please listen to the following statements, and answer on a scale of 1 to 7, where 1 means strongly agree and 7 means strongly disagree ...

	Stronglyagree						Stronglydisagree
	1	2	3	4	5	6	7
<b>CONSUMER INVOLVMENT</b>							
a) I am very concerned about what fish products I purchase	1	2	3	4	5	6	7
b) I care a lot about what fish products I consume	1	2	3	4	5	6	7
c) Generally, choosing the right fish products is important to me	1	2	3	4	5	6	7
<b>DOMAIN SPECIFIC INNOVATIVENESS</b>							
d) In general, I am among the first in my circle to purchase new fish products.	1	2	3	4	5	6	7
e) In general, I would consider buying new fish products	1	2	3	4	5	6	7
f) In general, I am among the first in my circle to know the latest fish product trends.	1	2	3	4	5	6	7
<b>SUBJECTIVE KNOWLEDGE</b>							
g) I consider that I know more about fish than the average person	1	2	3	4	5	6	7
h) I think that I know more about fish than most of my friends	1	2	3	4	5	6	7
i) I have a lot of knowledge about how to prepare fish	1	2	3	4	5	6	7
j) I I have a lot of knowledge about how to evaluate the quality of fish	1	2	3	4	5	6	7

**CLASSIFICATION TO SEGMENTS / SEGMENTATION CRITERIA**

Respondents are classified to segments according to their ranking sum in each of the above group of statements.



**INTERVIEWER SUM UP THE SCORES GIVEN TO THE ABOVE STATEMENTS (Q6) AND WRITE THE RESULT HERE BELLOW:**

	Sum of the scores given above			
<b>CI</b> = Consumer involvement (Q6,a+b+c)		CI<7	1	
		CI>6	2	CLOSE
<b>DSI</b> = Domain Specific Innovativeness (Q6,d+e+f)		SI<7	1	SEGMENT 2 (INNOVATORS)
		SI>6 & SI<15	2	CLOSE
		SI>14	3	SEGMENT 1 (TRADITIONALS)
<b>SK</b> = Subjective Knowledge (Q6,h+i+j)		SK<13	1	
		SK>12	2	CLOSE

Now, I would like you a few demographic questions just for classification purposes

Q7. Record gender

Female	1	Aim for male / female 50% /50%
Male	2	

Q8. Can you please tell me your age (record specific age): .....

Under 30	1	Close
30-39	3	GOOD SPREAD OF AGES
40-49	4	
50-59	5	
60 years & over		Close

Q9. What is your marital status?

Single, at parental home	1	Good mix
Single, living independently	2	
Married / Co-habiting	3	
Separated / Divorced	4	
Widowed	5	

Q10 Have you got any children living with you at home?



Yes, kids living at home	1	Record for info only
No, no kids living at home	2	
Q11. And what is your level of education?		
Secondary school without qualifications	1	
Higher education (not university)	2	
University (first degree, BSc)	3	Record for info only
University (higher degree, postgraduate as MSc, PhD)	4	
Q12. Which of the following best describes your current occupation/ role?		
Employer / freelancer	1	
Civil servant / private employee	2	
Housewife/husband	3	Good mix
Student	4	
Retired	5	
Unemployed	6	

Invitation:

We are inviting a few people to take part in this research. This is purely and simply a market research exercise, to help us understand about how people feel about certain food products. No one will attempt to sell you anything either during the focus group discussion or afterwards. We would very much appreciate your opinions.

The research will take place at .....and the session will last 2 hours. We will be giving a ‘thank you’ of XX to all who take part.

Would you be able to take part?

- Yes 1 RECRUIT & RECORD APPOINTMENT DATE/TIME
- No 2 CLOSE

**INTERVIEWER : Classify the eligible respondent and let him know the exact day/time and place of the discussion**



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Appendix 2 – Questionnaire for the expert interviews

**QUESTIONNAIRE EXPERT INTERVIEWS TASK 28.1.1**

**FILET - Germany**

The first product idea is a frozen fish filet that is seasoned or marinated either traditional, Italian, province or Asian. The product is produced environmentally sustainable (AsC). It is labelled as a premium product; the country of origin is EU. The product is in a sliding packaging, transparent vacuum packed bag made of recyclable material, with clear pictures of the unfrozen product on the cardboard sleeve.

FOR THIS PRODUCT IDEA THE FOLLOWING QUESTIONS ARE ASKED:

1. How attractive you think this product idea will be for consumers in [your country]?
2. Is this product unique for the current assortment of fish products in [your country]?
3. What is an acceptable price range for this product idea?
4. Which of the following species would be most interesting in [your country] for this product idea:
  - Meagre
  - Greater amberjack
  - Pikeperch
  - Atlantic Halibut
  - Grey mullet
  - Wreckfish
5. For what type of distribution channel is product interesting:
  - Supermarket
  - Specialty store
  - Out of home market (e.g. catering, restaurants)

Optional

6. How technically possible will this idea be for the fish companies in [your country]?
7. Does this product idea lead to large changeovers in production lines in [your country]?

**CONVENIENCE - UK**

The second product idea is a fresh fish back fillet that looks like a roast in tray or bag that can be prepared in an oven or barbecue. This fish is accompanied with dips, sauces and dressings. The product is produced environmentally sustainable (AsC). It is labelled as a premium product; the country of origin is EU. The packaging is transparent bag or a tray where fish is laid and covered with transparent plastic.

FOR THIS PRODUCT IDEA THE FOLLOWING QUESTIONS ARE ASKED:

8. How attractive you think this product idea will be for consumers in [your country]?
9. Is this product unique for the current assortment of fish products in [your country]?
10. What is an acceptable price range for this product idea?
11. Which of the following species would be most interesting in [your country] for this product idea:
  - Meagre



- Greater amberjack
- Pikeperch
- Atlantic Halibut
- Grey mullet
- Wreckfish

12. For what type of distribution channel is product interesting:

- Supermarket
- Specialty store
- Out of home market (e.g. catering, restaurants)

#### Optional

13. How technically possible will this idea be for the fish companies in [your country]?’

14. Does this product idea lead to large changeovers in production lines in [your country]?’

#### Spain

The third product idea is a fresh ready to eat meal with fish fillet with different cheese and fine herbs. The fish is seasoned. This product is pre-cooked and can be prepared in the microwave in 5 minutes. The product is produced environmentally sustainable (AsC). It is labelled as a premium product; the country of origin is EU. The packaging is individual with transparent window and a lid on the top under which you can smell the product.

FOR THIS PRODUCT IDEA THE FOLLOWING QUESTIONS ARE ASKED:

22. How attractive you think this product idea will be for consumers in [your country]?’

23. Is this product unique for the current assortment of fish products in [your country]?’

24. What is an acceptable price range for this product idea?’

25. Which of the following species would be most interesting in [your country] for this product idea:

- Meagre
- Greater amberjack
- Pikeperch
- Atlantic Halibut
- Grey mullet
- Wreckfish

26. For what type of distribution channel is product interesting:

- Supermarket
- Specialty store
- Out of home market (e.g. catering, restaurants)

#### Optional

27. How technically possible will this idea be for the fish companies in [your country]?’

28. Does this product idea lead to large changeovers in production lines in [your country]?’



## Spain

The fourth product idea is 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 (AsC). It is labelled as a premium product; the country of origin is EU. The packaging is transparent vacuum packed or in a plastic tray with transparent plastic on the top.

FOR THIS PRODUCT IDEA THE FOLLOWING QUESTIONS ARE ASKED:

29. How attractive you think this product idea will be for consumers in [your country]?
30. Is this product unique for the current assortment of fish products in [your country]?
31. What is an acceptable price range for this product idea?
32. Which of the following species would be most interesting in [your country] for this product idea:
  - Meagre
  - Greater amberjack
  - Pikeperch
  - Atlantic Halibut
  - Grey mullet
  - Wreckfish
33. For what type of distribution channel is product interesting:
  - Supermarket
  - Specialty store
  - Out of home market (e.g. catering, restaurants)

### Optional

34. How technically possible will this idea be for the fish companies in [your country]?
35. Does this product idea lead to large changeovers in production lines in [your country]?

## Italy

The fifth product is a bread crusted crispy frozen fish product with a topping of vegetables and sauce made by the traditional recipe. This fish product is medium seasoned and easy to prepare in the oven or the microwave in the original packaging. The product is produced environmentally sustainable (AsC). It is labelled as a premium product; the country of origin is EU. The packaging is a tray with transparent lid where image of the ready dish is presented.

FOR THIS PRODUCT IDEA THE FOLLOWING QUESTIONS ARE ASKED:

36. How attractive you think this product idea will be for consumers in [your country]?
  37. Is this product unique for the current assortment of fish products in [your country]?
  38. What is an acceptable price range for this product idea?
  39. Which of the following species would be most interesting in [your country] for this product idea:
    - Meagre
    - Greater amberjack
    - Pikeperch
-



- Atlantic Halibut
  - Grey mullet
  - Wreckfish
40. For what type of distribution channel is product interesting:
- Supermarket
  - Specialty store
  - Out of home market (e.g. catering, restaurants)

Optional

41. How technically possible will this idea be for the fish companies in [your country]?’
42. Does this product idea lead to large changeovers in production lines in [your country]?’

**LUXURY - France**

The sixth product idea is a fresh fish Carpaccio that can be used as starter for a hot meal or as sandwich filling. This Carpaccio will be seasoned with ginger and chilli and presented as scales of the fish. The product is produced environmentally sustainable (AsC). It is labelled as a premium product; the country of origin is EU. 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 rich different sections.

FOR THIS PRODUCT IDEA THE FOLLOWING QUESTIONS ARE ASKED:

43. How attractive you think this product idea will be for consumers in [your country]?’
44. Is this product unique for the current assortment of fish products in [your country]?’
45. What is an acceptable price range for this product idea?’
46. Which of the following species would be most interesting in [your country] for this product idea:
- Meagre
  - Greater amberjack
  - Pikeperch
  - Atlantic Halibut
  - Grey mullet
  - Wreckfish
47. For what type of distribution channel is product interesting:
- Supermarket
  - Specialty store
  - Out of home market (e.g. catering, restaurants)

Optional

48. How technically possible will this idea be for the fish companies in [your country]?’
49. Does this product idea lead to large changeovers in production lines in [your country]?’



## France

The seventh product idea is Botarga made of grey mullet and sliced like medallions. Botarga is a Mediterranean delicacy of salted, cured fish roe, typically from grey mullet or tuna. The product is similar to the softer cured mullet roe, karasumi from Japan and East Asia. The product is produced environmentally sustainable (AsC). It is labelled as a premium product; the country of origin is EU. The packaging is a tray with the transparent film on the top and product can be served in the same tray.

FOR THIS PRODUCT IDEA THE FOLLOWING QUESTIONS ARE ASKED:

50. How attractive you think this product idea will be for consumers in [your country]?
51. Is this product unique for the current assortment of fish products in [your country]?
52. What is an acceptable price range for this product idea?
53. For what type of distribution channel is product interesting:
  - Supermarket
  - Specialty store
  - Out of home market (e.g. catering, restaurants)

## Spain

The eight product idea is liquid fish to make soups or drink. Liquid fish for soups is in mashed form. These products are without additives and thus highly suitable for diabetic and vegetarian people. The product is produced environmentally sustainable (AsC). It is labelled as a premium product; the country of origin is EU. The packaging for soups is tetra brik, while liquid fish for drinking is in the plastic bottle.

Optional

54. How technically possible will this idea be for the fish companies in [your country]?
55. Does this product idea lead to large changeovers in production lines in [your country]?

## OVERALL

56. How would you characterize those ideas overall (*i.e.* creative/dull, innovative/common, realistic/'up in the air', promising/'dead-end', good/bad)
57. Will in your opinion the ideas generate any profits in the end for the fish industry in [country]
58. Will the ideas generate an increase in fish consumption overall in [country]



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