



Final event 15th of April

Task2.2 : Digestible, attractive, functional, sustainable and nutritionally adapted food to specific population groups



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Sub-contractant



Ethic Ocean



Partners involved in this Task 2.2

Seafood clusters

- ANFACO (Spain)
- AQUIMER (France)

Technical centers

- CIIMAR (Portugal)
- **IDMER (France) / Ethic Ocean**
- ILVO (Belgium)
- RISE (Sueden)
- ZUT (Poland)



Partners involved in this Task 2.2

IDmer : Technical center with 20 highly-qualified professional of the seafood and marine technology sectors. IDmer has facilities to conduct innovation and production activities, with health and safety certificates.

Ethic Ocean: Marine conservation organisation, working with the seafood industry to help the implementation of sustainable seafood supply practices.

Issues – why?



- More than 30% of stocks are overfished worldwide.
- Some less known species need to be better valorized.
- Vulnerable people (senior, children, pregnant women) are not eating enough seafood.

=> need to propose attractive recipes adapted to the 3 targeted public.

=> need to select less known and sustainable species.

Issues – what is a sustainable species?



- Coming from a sustainable stock – not overfished.
- Captured with a fishing gear which has a minimum impact on the ecosystem.
- Species that had time to reproduce before being captured.

- *Objective:*

Promote the use of sustainable fish species by best showing their nutritional and taste properties

- *population groups targeted :*

- Youth (8-10 years old),
- pregnant women,
- Seniors (>60 years old)



Specific needs of the population targets



The goals chosen within the project for product development were as follows:

Target population	Nutritional focus	Portions	Functionnal properties
children (8-10 years old)	Omega 3, Vitamin D	About 250 g, including 70 g ($\pm 10\%$) of seafood	Protein/ lipid ratio > 2 (or 1.5 for fatty species), no bones
Pregnant women	Omega 3, Vitamin D, Iodine	250 to 300 g, Including 100/120 g of seafood	Protein/ lipid ratio > 2 (or 1.5 for fatty species)
Seniors (≥ 60 years old)	Vitamin D, Vitamin B12, Protein, low salt	About 250 g, including 70 g ($\pm 10\%$)	Protein/ lipid ratio > 2 (or 1.5 for fatty species), easy to chew and handle, no bones

The formulation targeted the quantities corresponding to a « **rich in** » or at least « **source of** » claim:

- **Rich in omega 3:** > 80 mg of EPA and DHA /100 g and 100 kcal of product
- **Rich in vitamin D:** $> 30\%$ of $5\text{ }\mu\text{g}$ of vitamin D /100 g and 100 kcal of product
- **Rich in vitamin B12:** $> 30\%$ of $2,5\text{ }\mu\text{g}$ of vitamin D /100 g and 100 kcal of product
- **Rich in iodine:** $> 30\%$ of $150\text{ }\mu\text{g}$ of iodine /100 g and 100 kcal of product
- **Rich in protein:** at least 20% of the energy value of the food is provided by proteins.

For **salt intake**, the recommendation is to consume less than $3,2$ g of NaCl per day, the guideline is to **reduce as much as possible its use**, while having a **tasty dish**.

- *As a result, the eco-innovative solution is:*
 - Highlighting a sustainable seafood species
 - Adapted to the target (nutrition, texture, shape, taste,...)
 - Attracting, promoting fish consumption
 - Easily transposable to an industrial process
 - Affordable



- National and European contests:
- 13 competing schools & 6 winning recipes



Results

- 6 recipes fitting the criteria
- Semi-industrial production for demonstration

Products in their final packaging, skinpacked and frozen : left to right

Mussel soup, fishball senior, fishball children, carp sausage children, weat berry salad pregnant, fish roulade pregnant



Consumer tests in the real conditions:



- In collaboration with a senior house (EHPAD) in Dordogne (France), target : 50 seniors, in retirement homes, 89% of the residents would like the dish to remain unchanged, which shows **great general satisfaction**.
- Consumer test for children : supposed to take place in Paris region, delayed due to the pandemic context.



E-book

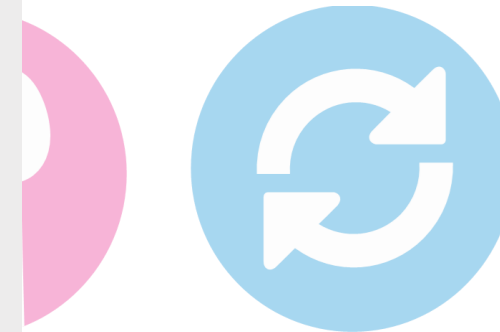
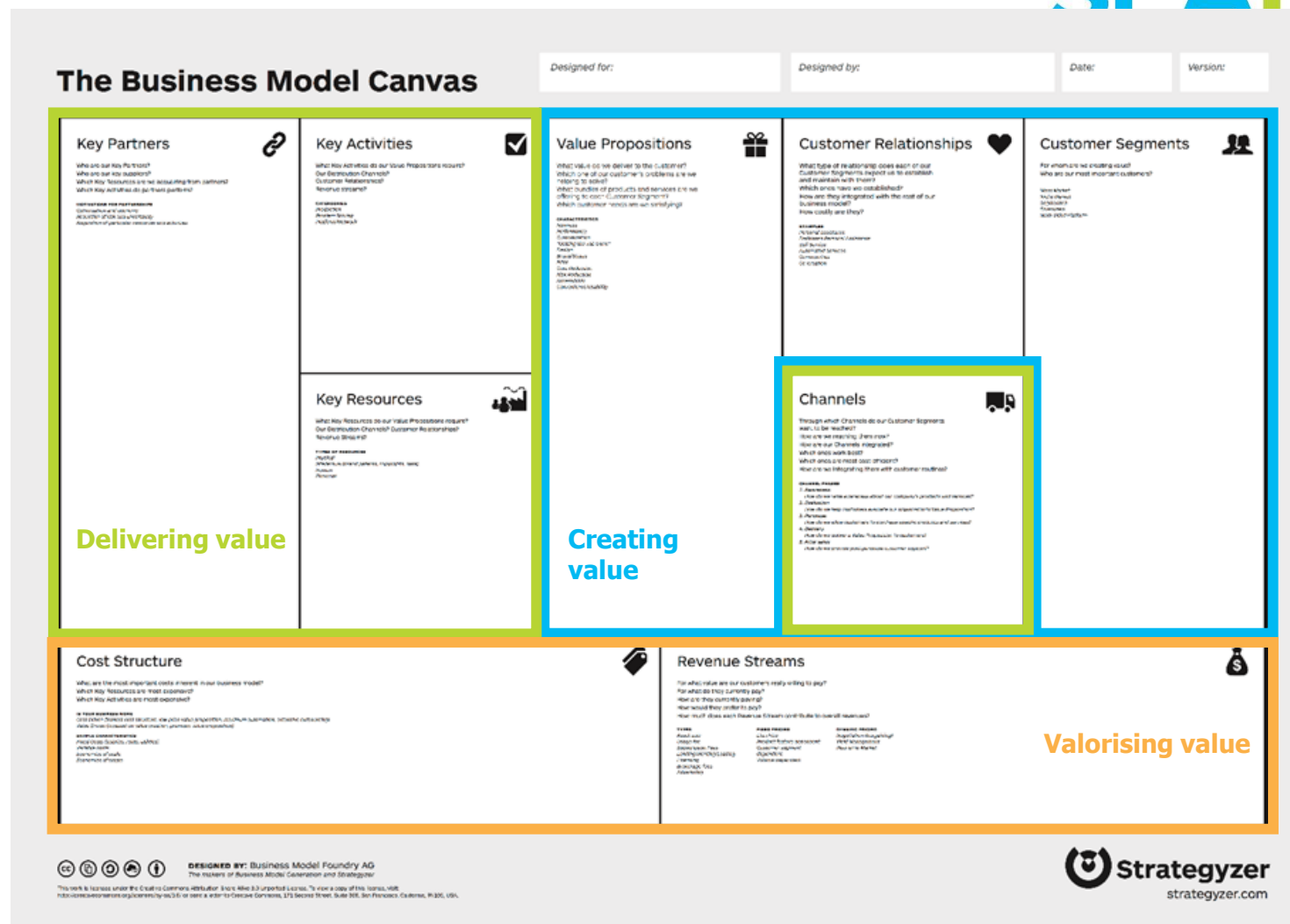
- Short presentation of the project and contests
 - Short presentation of the species used and sustainability information
 - 6 winning recipes
- => diffusion of the e-book to be planned shortly via all partners network





Task 4.2 Economic feasibility – T2.2: Tailor-made products for elderly people, children and pregnant women

Business canvas model





Thank You

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