

The sustainability indicator framework to communicate responsible aquafood production and consumption patterns

Project Title	The sustainability indicator framework to communicate responsible aquafood production and consumption patterns
Project Acronym	VeriFish
Project Number	101156426
Type of project	HORIZON-CSA HORIZON Coordination and Support Actions
Topics	HORIZON-MISS-2023-OCEAN-01
Starting date of Project	01 May 2024
Duration of the project	24 months
Website	www.verifish.info

# D4.1 – Initial recommendation for how to efficiently communicate to consumers about seafood

Work Package	WPX   WP Title		
Task	T4.1   Develop initial Good Practice recommendations specific for consumer		
	types and cultures		
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Version	V1.0 - DRAFT NOT YET APPROVED BY THE EUROPEAN COMMISSION		
Due Date	30/04/2025		
Submission Date	30/04/2025		

# **Dissemination Level**

Х	PU: Public, fully open
	SEN: Sensitive, limited under the conditions of the Grant Agreement
	Classified R-UE/EU-R – EU RESTRICTED under the Commission Decision No2015/444
	Classified C-UE/EU-C – EU CONFIDENTIAL under the Commission Decision No2015/444
	Classified S-UE/EU-S – EU SECRET under the Commission Decision No2015/444

# **Version History**





Revision	Date	Editors	Comments
0.1	21/02/2025	Silje Steinsbø, Themistoklis Altintzoglou, Oda Bjørnsborg, Roy Robertsen, Petter Olsen (Nofima)	First draft
0.2	09/04/2025	Silje Steinsbø Themistoklis Altintzoglou, Oda Bjørnsborg, Roy Robertsen, Petter Olsen (Nofima)	First complete draft
0.3	10/04/2025	Francesca Barazzetta (Eurofish)	Internal review
0.4	14/04/2025	Ixai Salvo (Eurofish)	Internal review
0.5	23/04/2025	Sara Pittonet (Trust-IT)	Internal review
0.6	25/04/2025	Silje Steinsbø Themistoklis Altintzoglou, Oda Bjørnsborg, Roy Robertsen, Petter Olsen (Nofima)	Second complete draft
1.0	29/04/2025	Silje Steinsbø (Nofima), Sara Pittone (Trust-IT)	Final version for upload

# **Keywords**

VeriFish, seafood, consumer, communication, seafood types, seafood consumers, consumer types, communication strategies, fisheries, fishery, wild catch, wild harvest, aquaculture, farmed seafood

# Disclaimer

VeriFish offers a framework of verifiable sustainability indicators for communications about sustainability based on FAIR data from EU- and global aquafoods repositories, brought together through the extraordinary collaboration of European-wide actors. Leveraging on this indicator, VeriFish designs, develops, and disseminates a number of media products to help citizens, seafood consumers and retailers, associations and policy makers make informed consumption choices.

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# **Glossary of terms**

ltem	Description	
AI	Artificial Intelligence	
CEN	Comité Européen de Normalisation	
CSA	Communication and Support Action	
CWA	CEN Workshop Agreement	
EC	European Commission	
GDPR	General Data Protection Regulation	
Ιυυ	Illegal, Unreported and Unregulated	
SDO	Standard Development Organisation	
SoMe	Social Media	





## **EXECUTIVE SUMMARY**

The VeriFish initial recommendations for how to efficiently communicate to consumers about seafood are designed to be a useful tool for the seafood industry when designing seafood campaigns with the aim of increasing seafood consumption.

This report (D4.1 – Initial Recommendation for how to efficiently communicate to consumers about seafood) is linked to task 4.1, where input and experiences from WP2 and WP3, existing literature and knowledge on the issue is used to make an initial Good Practice recommendation on how to efficiently communicate to consumers about seafood and how to organise sustainable seafood consumption campaigns. Relevant communication strategies for consumer types, geographical areas, seafood types and media types, including characteristics of the products to highlight for different cases and how to present them are outlined.

Results from this will ultimately be published as a CEN Workshop Agreement (CWA), which may serve as a foundation for a potential future ISO standard. The upcoming CWA from WP4 of VeriFish builds on this document, the indicator framework developed in WP2, and the communication strategies documented in WP3.

Following the introduction, the report is structured to guide the reader through the development of recommendations on how to efficiently communicate to consumers about seafood. In chapter 2 **Consumer types,** different aspects related to communication towards different segments of seafood consumers are addressed and elaborated, including geographical considerations. Within chapter 3 Seafood types seafood is categorized into groups with the aim of both including all seafood, but also bearing in mind the possibility of reconciling them with different consumer types where it can be appropriate to communicate different information about seafood. Because of the aims and complexity in grouping seafood, there is also a section with rationale behind rejected seafood type categorizations to be found as appendix (chapter 8). In 4 Communication strategies some essential considerations when planning how to communicate information about seafood to different types of audience is elaborated. Ultimately in chapter 5 Recommendations a comprehensive table of initial VeriFish recommendations for how to efficiently communicate to consumers about seafood sums it all up with specific recommendations per consumer type and seafood type. In **6 Examples** there are two case examples of how the table of recommendations in chapter **5** Recommendations can be used in practice. In addition, we tested the use of the ChatGPT 4.0 app from OpenAI as a tool to plan and execute a marketing campaign for a seafood product as a case. The purpose was to assess the quality and documentation of the AI-generated output.





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# **1** Introduction

The VeriFish project focuses on how sustainable seafood can be communicated to consumers across Europe. Health, nutritious diets, sustainability, and responsible consumption are key drivers of increased seafood consumption, and VeriFish aims to ensure that seafood information is shared based on scientific knowledge, industry practices, and consumer understanding.

An important objective of the project is to develop a comprehensive European Good Practice Recommendation for seafood communication. By formalizing communication strategies in a CEN Workshop Agreement, the project ensures that the recommendations will not only be widely accessible but also officially recognized and distributed through national standardization bodies.

This provides stakeholders – from seafood producers to other relevant actors – with a tool to engage consumers in ways that are both scientifically grounded and adapted to market needs.

## **1.1 Background**

The initial recommendations for how to efficiently communicate to consumers about seafood are designed to be a useful tool for the seafood industry when designing seafood campaigns with the aim of increasing seafood consumption. Also, they are designed to help the seafood industry improve how they communicate to consumers about the sustainability of seafood products. Ultimately – through the seafood industry – promoting an increase in sustainable seafood consumption in the EU.

These initial recommendations draw on insights and results from the VeriFish project and reliable databases, research and literature with an emphasis on how producers can apply this information in practice to encourage informed and responsible seafood choices.

Complex segmentation in consumer research involves analysing data across multiple dimensions, such as demographics, psychographics, and behavioural patterns. This complexity is amplified when integrating descriptive characteristics like consumer preferences and attitudes towards food sustainability. The challenge lies in merging these diverse segments to create a cohesive understanding that can effectively inform communication strategies. Accurate segmentation and integration are crucial for developing targeted messages that resonate with consumers and promote sustainable food choices. However, defining globally applicable consumer groups is expected to lead to a higher impact from the VeriFish project.

Food categories and their organisation can become a long and complicated endeavour. One way of organising food categories is for what they offer to the consumer in terms of day-to-day solutions. The "Jobs to be Done" (JTBD) framework (Bettencourt et al., 2021) analyses consumer behaviour in supermarkets by positing that consumers "hire" products to fulfil specific tasks or solve problems in their daily lives. This framework highlights that consumers engage in sub-goals or "job steps" when shopping, such as selecting ingredients for a warm dinner based on cooking skills, dietary preferences, and time constraints. Bettencourt et al. (2021), emphasize defining the job independently of the means to avoid myopia in assisting consumers. Diderich (2024), discusses value creation in demand-driven markets, stressing the importance of understanding customer segments and their specific jobs. Price sensitivity influences consumer choices, with research showing that pricing strategies can stimulate healthier food choices (Waterlander et al., 2012; Ravensbergen et al., 2015). Jia et al. (2024), note that the effects of price promotions vary across product categories, influenced by relationships between items. Aligning



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product offerings with consumer jobs enhances satisfaction, optimizes pricing strategies, and creates effective promotional campaigns.

## **1.2 Objectives**

The objective of this deliverable (D4.1) is to make initial recommendations for how to efficiently communicate to consumers about seafood. This is documented as a list of VeriFish recommendations on how to efficiently engage and influence various types of consumers to encourage consumption of local<sup>1</sup>, seasonal<sup>1</sup>, and sustainable seafood.

Deliverable D4.1 is linked to task 4.1, where input and experiences from the project, existing literature and knowledge on the issue is used to make an initial Good Practice recommendation on how to efficiently communicate to consumers about seafood and how to organise sustainable seafood consumption campaigns. Relevant communication strategies for consumer types, geographical areas, seafood types and media types, including characteristics of the products to highlight for different cases and how to present them will be outlined.

This report draws on scientific articles, reports, and available information regarding existing sustainability communication efforts, such as campaigns. Given the vast amount of information available, we decided to simplify and categorize the content to enhance its usability and real-world impact.

Results from this will ultimately be published as a CEN Workshop Agreement (CWA)<sup>2</sup>, which may serve as a foundation for a future ISO standard<sup>3</sup>. The upcoming CWA from WP4 of VeriFish builds on this document, the indicator framework developed in WP2, and the communication strategies documented in WP3.

## 1.2.1 Clarifications

For this to be a functional document, there are some clarifications that may facilitate understanding of what has been included and excluded.

First, In VeriFish the term "seafood" is used in communication campaigns and materials, while the term "aquafood" is normally used for deliverables and technical documents. However in this deliverable we use the term "seafood" to avoid confusion related to the literature the report relies on. Here "seafood" refers to all edible organisms that inhabit aquatic environments. This includes food from fisheries and aquaculture, from seawater, brackish water and freshwater.

Second, we need some considerations around who will be paying for and deciding what type of information will be used in marketing of seafood. Campaigns and marketing solutions etc. don't come for free. It needs to be funded somehow, and the probability that financing communication on seafood products will be closely linked to the distributing party is high. Those selling a product, with a hope to make money from it, are unlikely willing to pay for communication of negative loaded character. This is

<sup>&</sup>lt;sup>3</sup> The formal definition from the International Organization for Standardization (ISO) and its sister organization, the International Electrotechnical Commission (IEC) is: a document, established by consensus and approved by a recognized body, that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context.(www.iso.org)



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<sup>&</sup>lt;sup>1</sup> See 1.2.1 Clarifications for elaboration of our use of the term.

<sup>&</sup>lt;sup>2</sup> CEN Workshop Agreement (CWA) - CEN and/or CENELEC deliverable, developed by a CEN and/or CENELEC Workshop, which reflects an agreement between identified individuals and organizations responsible for its contents, and which is made available by CEN and/or CENELEC in at least one of the official languages (CEN-CENELEC Guide 29:2024)



an important reason, together with the deliverable's objective, that our recommendations will be focused on the sustainability factors of seafood production that can be positively loaded.

There will be events where our recommended positive loaded sustainability information is not applicable, due to e.g. lack of sustainability or lack of verifiable data. The best possible outcome in such cases is that our recommendations may stimulate a desire for sustainability improvements or improved data collection, availability and validity.

And third, possible issues using the terms "local" and "seasonal" needs elaboration.

In the description of the deliverable, it is envisioned that we will make a "List of VeriFish recommendations on how to efficiently engage and influence various types of consumers to encourage consumption of local, seasonal, and sustainable seafood". However, during the lifetime of the project so far, it has been up for discussion as to whether our use of the terms "local" and/or "seasonal" in the context of encouraging European citizens to more sustainable seafood consumption may be problematic. For both terms, our main concern is whether "local" and/or "seasonal" seafood can be perceived as sustainable, in and of itself, and potentially operate as misleading.

Sustainable seafood can undoubtedly be local and/or seasonal. However, not all local and/or seasonal seafood is sustainable.

Seasonality for wild caught seafood is driven by availability of the resources in terms of when and where migration patterns, growing conditions and quality parameters, together with rules and regulations, allow favourable effective harvest. Within a well-managed harvest, where rules and regulations are complied with, this form of seasonality is already considered. Therefore, positive communication of legally (hence not illegal, unreported and unregulated (IUU) fishing) caught and harvested seafood is more meaningful than season in itself.

Awareness of possible issues surrounding these terms is important. Our recommendations on promoting local and seasonal seafood are connected to the main goal of the VeriFish project of getting more people to eat healthy and sustainable seafood.





# 2 Consumer types

The communication of sustainability in seafood consumption is a multifaceted issue that varies significantly across different consumer segments, product types, and geographical areas in Europe. Understanding these variations is crucial for developing effective strategies to promote sustainable seafood consumption and thus designing communication material. Successful campaigns will take these variations into consideration by designing communication that targets consumer segments, taking cultural differences into account.

Research indicates that consumer attitudes towards sustainability in seafood are influenced by demographic factors, including age and socio-economic status. For instance, Generation Z (born between 1997 and 2012) has been identified as particularly environmentally conscious, often prioritizing sustainability in their consumption choices more than previous generations (Gibson et al., 2023). This demographic is more likely to support sustainable seafood initiatives, reflecting a broader trend where younger consumers demand transparency and sustainability from food producers (Gibson et al., 2023). Conversely, socio-economic factors also play a critical role; higher seafood consumption rates are often observed among affluent consumers, while those from lower socio-economic backgrounds may perceive seafood as an expensive option, thereby limiting their consumption (Farmery et al., 2018). Moreover, the understanding of sustainability among consumers is often shaped by their familiarity with eco-labels and sustainability claims. Studies have shown that consumers who are educated about sustainable practices are more likely to engage in purchasing sustainable seafood (Lawley et al., 2019). However, the effectiveness of eco-labels can be undermined if consumers lack sufficient information or if the labels are not clearly communicated (Vella, 2023). This highlights the need for targeted educational campaigns that cater to different consumer segments to enhance their understanding and willingness to purchase sustainable seafood. Another study identified five European consumer segments based on their willingness to buy new aquaculture fish products. The "Foodies" and "Adventurous responsible" segments are the most promising target groups due to their high involvement and interest in food, innovation, and responsibility. Strategies to target these segments should emphasize product innovativeness, sustainability, and health benefits (Stancu, V. et al., 2022).

The types of seafood products available also influence consumer perceptions and choices. For instance, the demand for sustainably sourced seafood has led to the development of novel product concepts that appeal to health-conscious consumers (McKenzie et al., 2021). However, the willingness to pay a premium for sustainable seafood varies significantly across different geographical regions and product types (Malcorps et al., 2021). In Europe, consumers may exhibit varying levels of support for sustainability based on their knowledge of local fishing practices and the perceived ecological impact of seafood sourcing (Guillén et al., 2018). Furthermore, the messaging surrounding sustainability plays a crucial role in shaping consumer behaviour. Effective communication strategies that highlight the health benefits of sustainable seafood, alongside its environmental advantages, can enhance consumer interest and willingness to purchase (Dreger-Smylie, 2021). However, if sustainability is framed merely as a commodity without demonstrating its superiority over conventional options, consumers may not see a compelling reason to change their purchasing habits (Dreger-Smylie, 2021).

#### Types of Fish Consumers in Europe:

**Health-Conscious** Consumers: This group prioritizes the health benefits associated with fish consumption, often influenced by their awareness of nutritional value. Studies indicate that consumers who perceive fish as healthy are more likely to include it in their diets (Can et al., 2015; Tomić et al., 2016; Pieniak et al., 2010). Pregnant women, for example, are particularly concerned about the health



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implications of seafood consumption, which can affect their choices (Can et al., 2015; Conway et al., 2020).

**Environmental and Ethical** Consumers: These consumers are motivated by environmental sustainability and ethical considerations. They often prefer farmed fish due to perceptions of sustainability related to local sourcing and environmental benefits (López-Mas et al., 2023; Lončarić et al., 2021). However, they also value wild fish for its animal welfare aspects (López-Mas et al., 2023).

**Familiarity-Driven** Consumers: Many consumers stick to familiar fish types due to a lack of knowledge about selecting and preparing different species. This group may be less adventurous in their consumption habits, often opting for commonly available species (Viana et al., 2020; Christenson et al., 2017; Birch & Lawley, 2013).

**Price-Sensitive** Consumers: Economic factors play a significant role in fish consumption. Price competition and perceived value can deter consumers from purchasing certain types of fish, especially during economic downturns (Raftowicz-Filipkiewicz et al., 2020; Isfahani et al., 2022).

**Occasional** Consumers: This segment includes individuals who consume fish infrequently, often due to barriers such as preparation difficulties or taste preferences (Mitterer-Daltoé et al., 2013).

#### **Targeting Different Consumer Segments:**

For **Health-Conscious** Consumers: Information campaigns should emphasize the nutritional benefits of fish, particularly omega-3 fatty acids, and how regular consumption can improve health outcomes. Tailored messaging for pregnant women about safe seafood choices can also be effective (Can et al., 2015; Conway et al., 2020).

For **Environmental and Ethical** Consumers: Marketing strategies should highlight sustainability certifications and the environmental benefits of choosing farmed or wild fish. Engaging these consumers through storytelling about local fisheries and sustainable practices can enhance their connection to the product (López-Mas et al., 2023; Bimbo et al., 2022).

For **Familiarity-Driven** Consumers: Educational initiatives that focus on easy-to-prepare recipes and cooking demonstrations can help increase familiarity with different fish types. Providing information on how to select and cook fish can reduce barriers to consumption (Viana et al., 2020; Christenson et al., 2017; Birch & Lawley, 2013).

For **Price-Sensitive** Consumers: Promotions and discounts on sustainable fish products can attract this segment. Additionally, communicating the long-term cost benefits of consuming fish over other protein sources can be persuasive (Raftowicz-Filipkiewicz et al., 2020; Isfahani et al., 2022).

For **Occasional** Consumers: Campaigns should focus on convenience and ease of preparation, perhaps through ready-to-cook fish products or meal kits. Highlighting the taste and versatility of fish in various cuisines can also encourage more frequent consumption (Mitterer-Daltoé et al., 2013).

In conclusion, understanding the diverse motivations and barriers faced by different consumer segments in Europe is crucial for effectively promoting sustainable fish consumption. Tailored communication strategies that address these specific needs can foster greater awareness and increase overall fish consumption.





## 2.1 Geographical areas

Geographical differences in seafood consumption patterns are evident across Europe and geographical placement of living areas. For instance, Mediterranean countries often have distinct seafood consumption habits influenced by local culinary traditions and fishing practices. In contrast, Northern European countries may prioritize different species and sustainability practices based on their fishing industries (Guillén et al., 2018). The global nature of seafood trade further complicates this landscape, as many European countries import seafood products that may not meet local sustainability standards, thereby affecting consumer perceptions (Guillén et al., 2018). Additionally, regional initiatives aimed at promoting local sustainable seafood markets have shown promise in increasing consumer engagement and support for sustainable practices (Kehoe et al., 2016). These initiatives often leverage local cultural values and community engagement to foster a sense of responsibility towards sustainable seafood consumption.

Effectively communicating the sustainability of seafood consumption requires a nuanced understanding of consumer segments, product types, and geographical contexts. Tailored educational strategies that address the specific needs and perceptions of different consumer groups, alongside clear and compelling sustainability messaging, are essential for fostering a more sustainable seafood market in Europe.

To effectively communicate sustainable fish consumption to consumers in Europe, it is essential to tailor the messaging based on geographical areas, cultural contexts, and whether consumers live inland or by the coast. The following bullet points summarize key strategies:

**Utilization of Eco-labels**: Promote eco-labels as a means to guide consumers towards sustainable seafood choices. Research indicates that eco-labels can enhance consumer awareness and influence purchasing decisions, particularly when consumers are educated about their significance (Gutiérrez & Thornton, 2014; Malcorps et al., 2021; Lay, 2012). However, it is crucial to address the underlying issues of overfishing and not solely focus on eco-labels (Gutiérrez & Thornton, 2014).

**Regional Messaging**: Customize communication strategies based on regional preferences and consumption patterns. For coastal communities, emphasize the benefits of supporting local fisheries and the environmental advantages of consuming locally sourced seafood (Kehoe et al., 2016; Tookes et al., 2018). In contrast, inland consumers may require education on the sustainability of seafood transportation and the importance of sourcing from responsible suppliers (Lawley et al., 2019).

**Cultural Considerations**: Acknowledge cultural differences in seafood consumption. For instance, in regions with strong culinary traditions involving seafood, highlight the health benefits and culinary versatility of sustainable fish options (Fabinyi et al., 2016). Tailoring messages to resonate with local culinary practices can enhance acceptance and willingness to pay for sustainable options (Zander & Feucht, 2017).

**Health and Safety Messaging**: Emphasize the health benefits associated with sustainable seafood consumption, such as the presence of omega-3 fatty acids and their role in preventing chronic diseases (Wu et al., 2012). This approach can appeal to health-conscious consumers across various demographics, fostering a connection between sustainability and personal health.

**Consumer Education Campaigns**: Implement comprehensive consumer education campaigns that address knowledge gaps regarding sustainable seafood. Studies show a positive correlation between consumer knowledge and sustainable purchasing decisions (Lawley et al., 2019). Educational initiatives should focus on the environmental impact of seafood choices and the importance of supporting sustainable practices (Kittinger et al., 2021; Oosterveer, 2015).



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**Price Sensitivity and Transparency**: Address the price sensitivity of consumers by providing transparent information about the costs associated with sustainable fishing practices. Highlighting the long-term benefits of sustainability can help justify higher prices for eco-labelled products (Zander & Feucht, 2017; McKenzie et al., 2021). Innovative technologies for traceability can also enhance consumer trust and acceptance (McKenzie et al., 2021).

**Engagement with Local Communities**: Foster community engagement by involving local stakeholders, such as fishers and seafood suppliers, in sustainability initiatives. This approach can create a sense of ownership and responsibility among consumers, encouraging them to support local sustainable seafood markets (Kehoe et al., 2016; Tookes et al., 2018; Kittinger et al., 2021).

**Leveraging Social Norms**: Utilize social norms and peer influence to encourage sustainable seafood consumption. Research indicates that consumers are more likely to adopt sustainable practices when they perceive them as socially accepted and valued within their community (Kehoe et al., 2016; Barclay & Miller, 2018). Campaigns that highlight community leaders or local influencers advocating for sustainable seafood can enhance this effect. By employing these strategies, communication about sustainable fish consumption can be effectively tailored to meet the diverse needs of European consumers, fostering a more sustainable seafood market.





# 3 Seafood types

To support effective communication strategies, seafood must be categorized in ways that are relevant to consumer preferences and decision-making contexts. Rather than relying on traditional taxonomies based on species or production methods alone, this report proposes a typology informed by how seafood is used and sourced—allowing communication to be tailored to diverse consumer types.

Categorizing seafood in a limited number of groups is far from straight forward. The great variety in e.g. species and groups of species, different operational methods used to catch, harvest and produce seafood and various ways to process it before it is marketed and sold to consumers is countless. As the purpose of this report is to make recommendations on how to best communicate sustainability to different types of seafood consumers it is desirable to group seafood in a way that can be reconciled with consumer types.

In the exercise of looking for an appropriate level of detail and a practical way of dividing seafood into categories, it was first tried to make groups where every type was mutually exclusive. This, however, did not seem rational when considering different communication to different types of consumers. We therefore decided to organise seafood types based on the purpose they serve in the consumers' household, i.e. the way consumers use products for their jobs-to-be-done, as described in the introduction. Other considered typologies, which were rejected, are to be found in 8.1 (appendix) with reasoning for rejection.

Instead, moving away from mutually exclusive categories, towards a typology which leaves it open for those concerned to "*pick and mix*" information, seems more realistic. Meaning a typology clearly open to freely choose attributes across both consumer types and seafood types, based on the communicator's own preferences and available verifiable information. With this approach, two levels of categorizing seafood into types are elaborated, where the first level is distinguishing seafood by whether it comes from wild or farmed conditions, and a second level which differentiate seafood in two categories of purchasing purpose.

With the four categories on two levels picking attributes from at least one category in each level is natural. A seafood product would always stem from either wild or farmed conditions, or both. In cases of both (e.g. catch based aquaculture) it would be convenient to communicate the in any case most appropriate attributes from both categories. In the case of purchasing purpose, the two categories are broad enough to include all types of seafood. At the same time, they can give an extra dimension to communicators in the case where they want to specifically reach out to consumers based on their instant target in the shop. Again, not mutually exclusive, leaving it open for the producer to pick and choose freely from more than one category. The two seafood levels and categories within them are:

#### Level 1 seafood type:

"Fisheries" for seafood acquired from wild stocks.

"Aquaculture" for farmed seafood.

Level 2 seafood type:





"In need of preparation" a range of less processed products, like fillets, gutted fish and whole products etc. Including different cuts, and light processing like for example salted, smoked and boiled.

"**Ready for meal**" a range of more processed products ready to eat and/or ready for temperature treatment. Examples include fish gratin, fish cakes, buttered fish, fish sticks, fish burgers etc., canned products ready to go on baguettes, toasts, in salads, like tinned tuna, mackerel in tomato, caviar, peeled shrimps in brine etc.

Following is the rationale behind the choice of typology for differentiating seafood, first between aquaculture and fishery, then between the two mentioned purchasing purposes.

## 3.1 Level 1 seafood types: differentiate fishery and aquaculture

Seafood from wild stocks and populations (from fisheries) and seafood from aquaculture production have similarities and differences, which on one side complicate and on the other simplify the picture of how to effectively communicate about sustainability within seafood.

Differences in e.g. regulatory frameworks, technological needs, input factors like feed, hence also certification schemes, gives that preferred highlighted attributes to use in communication vary. This makes it meaningful to distinguish what is caught from the wild, from what is farmed in more controlled systems in aquaculture, into different seafood types.

The need to highlight different attributes between fishery and aquaculture, is reinforced by possible misunderstandings in relation to use of scientific names and same processing possibilities between the time a resource is taken out of an aquatic environment and ends up on a plate.

Following are descriptions of the mentioned differences and similarities, to highlight the importance of differentiating. For some of the aspects below, more detailed reviews can be found in *VeriFish D2.1*. *Indicator Framework Defined* and D2.2 Indicator Framework Developed, noted where applicable.

## 3.1.1 Technology in fishery and aquaculture

The technology used within both fisheries and aquaculture, can vary greatly in e.g. size, purchasing cost, lifetime, area of application, depending on numerous factors like area, species, scale, availability etc.

In fisheries, technology input and following externalities, hence sustainability, is most often related to type of gear, vessel type and size and purpose of the mentioned.

In aquaculture, technology input and following externalities are often related to the use or not of production units (e.g. ponds, cages, tanks, ropes etc.), size of them, and their contact or not with the surrounding environment (e.g. open, closed etc.). Also, in aquaculture there are numerous vessels that can be used of different types for different purposes like transport of e.g. fish to and from fish farms, treatments etc.

Regarding this report, it is important to distinguish seafood stemming from fisheries and aquaculture, because having sustainable technological facilities in one can be completely different to the other. The distinction can be important for consumers concerned about e.g. environmental impact.

As an example: comparing fuel consumption between a vessel used in fisheries and a level sized vessel used in aquaculture is futile, because their purpose can be completely different. In aquaculture, vessels are mainly moving between sites and/or land, with clear purposes of e.g. transporting fish, workers, feed, installations, cleaning installations or take part in treatment processes.



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Although unforeseen events can occur also in aquaculture, the use of vessels can be more optimized through planning than in fisheries. In fisheries natural changes in migrations patterns and food availability etc. can have great influence on catch per unit effort (input time, fuel, work effort etc.).

#### 3.1.2 Feed input

Feed input for growth is another of the most fundamental differences between seafood from wild and farmed resources. Seafood from fisheries is in general not fed for growth, whilst seafood from aquaculture ranges from non-fed to intensively fed.

In aquaculture where feed is present the type of ingredients used, as well as the utilization rate of the feed (e.g. quantity needed) can be of importance when evaluating the environmental and socioeconomic impact of production.

Although feed for growth is not used in fisheries, some fisheries use bait to lure given species to the fishing gear (e.g. baited longline and pots). In this case the composition, what resource it originates from and here, also, the utilization rate is topical when considering sustainability.

However, the utilization rate and ingredients used for growth in aquaculture cannot be compared to those of bait used in fisheries, as the purpose is fundamentally different. Distinguishing fisheries and aquaculture can in this case be of interest for e.g. consumers concerned about environmental matters.

#### 3.1.3 Regulatory framework

As a result of fisheries and aquaculture having completely different needs of e.g. technologies and feed input, they also require very different regulatory frameworks in the search of sustainability.

In fisheries, preventing overexploiting stocks and fair distribution of resources, amongst others are important regulatory matters. In each fishery there may also be rules and regulations to protect the surrounding environment and resources therein, e.g. by defining size of fishing gear to prevent fishing on other resources than the targeted stock (or size of individuals).

In the regulatory matters of aquaculture, confining production volumes is more relevant. This, often in connection with a search for viable interference with the surrounding environment, be it natural habitats and native species therein, other human activities nearby, but also to promote good health and welfare for the animals or plants in production.

The distinction between the two (fisheries and aquaculture) can e.g. be important for consumers who focus on environmental and/or local matters. A lot of what is included in different regulatory frameworks is however not expedient to communicate to consumers, due to very complex and intricate content both in fisheries and aquaculture.

For example, in wild fisheries, the determination of total quotas, and complying with them, is an essential part of the puzzle to keep stocks and populations within viable exploitation levels. However, to the receiver of information about seafood, both the total quotas and calculations behind them provide little or no information. What can be interesting, on the other hand, and derived from data regarding stock status<sup>4</sup>, is whether the seafood stems from a stock or population exploited within sustainable biological limits.

The aquaculture industry in Europe has regulations related to aquaculture permits and production either required by law or recommendation/guidelines on national or european level, e.g. in EU the

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<sup>&</sup>lt;sup>4</sup> More guidance on topic in Astley, S et al. (2024) VeriFish Indicator Framework Defined - D2.1. (1.0). Zenodo. <u>https://doi.org/10.5281/zenodo.14384281</u>



recommendation "Strategic Guidelines for a More Sustainable and Competitive EU Aquaculture for 2021-2030" have been published. Both production gear and equipment are normally regulated in detail (Newtech23, Norway), except requirements related to environmental impacts and fish health.

#### 3.1.4 Scientific names

The use of scientific names is one of the matters which can make it important to distinguish between seafood from fisheries and aquaculture when communicating sustainability. The same species, holder of the same scientific name (e.g. sugar kelp: *Saccharina latissimi*, mussels: *Mytilus edulis* and Atlantic salmon: *Salmo salar*), can be captured from the wild, captured from the wild and farmed for some part of a life cycle, or completely farmed, from start to finish.

Because of fundamental differences in what happens before a resource is taken out of its aquatic system, a matter considered sustainable for a given species within aquaculture does not necessarily say anything about sustainability within fishery, and vice versa. This means that communicating sustainability of a seafood product, containing the same species, can vary greatly, not exclusively, but very dependent on type of origin, and supports the rationale to distinguish resources from wild and farmed conditions, and goes for all types of consumers.

#### 3.1.5 Seafood processing

Between the moment a catch or production is taken out from its aquatic environment, and the moment the seafood is part of a meal, there are countless possible processing ways, value adding processes and transporting routes, among other things. The countless possible paths a product can take are however not dissimilar between seafood from aquaculture and fishery but tend to be quite similar once in the production chain after first sale.

## 3.2 Level 2 seafood types: differentiate on "purchasing purpose"

According to the "Jobs-to-Be-Done" theory, we have defined two practical purchasing purposes, for several seafood categories. The two purposes are "in need for preparation" and "ready for meal", as divided in the table in chapter 5.

There is not a clear line between the level 2 categories "in need for preparation" and "ready for meal", but we see two main distinctions that can be made in the matter of communicating them to different consumer types, which is use of recipes and information about added nutrients for the products. Both concerning different type of information can encourage increased consumption of sustainable seafood by different types of consumers, again after what they go to purchase in the first place.

For seafood that needs preparation, adding recipes on how to prepare a meal with the product could give consumers ideas of how to use it in different ways than before. Also, the seafood in need of preparation in general don't have a lot of added nutrients, as adding nutrients might be a part of the preparation. For seafood ready for meal, on the other hand, recipes are not as topical, but added nutrients could be of great importance, especially for health-conscious consumers.





# 4 Communication strategies

The word communication originates from the Latin word "communicare", meaning "to share" or to "make common<sup>5</sup>". This reflects the purpose of communication, making information or ideas common between people. "Communicare" also means to participate, emphasizing the active involvement of parties in the communication process. Communication - as opposed to information - means to "make common". To be able to "make common" we need to tailor the information so that it fits the receiver of that communication activity. In order to be successful with seafood campaigns, the campaigns must achieve the goal of "make common", because this is how you engage your audience.

When defining a communication strategy, the following elements must be taken into consideration.

## 4.1 Target audience

When planning a communication strategy, the first, and most important element is to decide *who* you want to communicate with. Different groups interpret and prioritize sustainability in different ways. Communication must therefore be adapted in both tone and content to suit the expectations, knowledge levels, and motivations of each audience segment. If you want your information to be heard and noticed, you as the communicator must aim to "make common". Therefore, all communication activities should be tailored to reach a specific target audience.

## 4.2 Appropriate channels

Once you have decided who your target audience(s) is (are), you should analyse *where* your target audience is present, and which channels you can use to reach them.

Different consumer groups access information through different channels. Younger audiences (age 18-29) 78% get news from social media, compared to the 28% of older adults  $(65+)^6$ . Older adults still rely more heavily on traditional media, particularly television, with 86% of those 65+ getting news from TV at least sometimes<sup>7</sup>. In general, statistics show that the younger generations are more digitally oriented in their news consumption habits, while older adults tend to prefer more traditional news sources<sup>8</sup>.

Also, a generational division can be found in the use of social media platforms. Even though Facebook remains the most popular media channel, its use has decreased among younger adults that are more likely to use a variety of platforms, including like TikTok and Snapchat<sup>9</sup>.

Channels for reaching seafood consumers can vary depending on your target group, but examples of possible useful channels include media articles – mass media or specific media, social media, brochures, TV ads, campaigns, posters, events, stands, cooking events with chefs, books, recipes, websites and more.

<sup>&</sup>lt;sup>9</sup> What Social Media Does Gen Z Use? [Updated Feb 2024]



<sup>&</sup>lt;sup>5</sup> communicate | Etymology of communicate by etymonline

<sup>&</sup>lt;sup>6</sup> News Platform Fact Sheet, 2024 | Pew Research Center

<sup>&</sup>lt;sup>7</sup> News Platform Fact Sheet. 2024 | Pew Research Center

<sup>&</sup>lt;sup>8</sup> News Platform Fact Sheet, 2024 | Pew Research Center



Understanding where each group gets their information enables tailored outreach. For example, ethical or environmental messaging may perform well on LinkedIn or long-form video platforms, while simple nutritional facts can be shared through short-form video content.

#### 4.2.1 Social media

Social media can be used as an effective channel to reach a large number of consumers at once. Advantages of using social media as opposed to traditional media channels such as TV, newspapers and radio is that social media is accessible and (for the large part) free. While TV commercials and ads can make a dent in a small business' budget, creating a social media channel is free in many of the most popular channels (Meta channels, YouTube, LinkedIn ++). Social media channels are also channels where the users can engage and provide feedback, which can help with your aim to engage and motivate a change in behaviour.

Social media is a very important channel, especially for the age group 18-29. For a small business, trying to increase their sale of seafood, social media offers a free, accessible and potentially very engaging channel to promote their seafood sales. Given these advantages, we have chosen to focus on social media as a channel in this deliverable.

There are some challenges with social media as channels for campaigns. Building a group of followers can be difficult and time consuming, especially if you do not have substantial knowledge of how each platform functions with each platform's algorithms and post formats. Understanding how your target group interacts, engage and consume content on each platform is important.

## 4.3 Messages

At the very core of every campaign or communication activity lies the message (s). The message should reflect what you want your audience to remember after having received your campaign. Your message should reflect both your target audience and your chosen channel(s) for the campaign.

If you want consumers to increase their intake of seafood, you need to adapt your message to fit your target audience. While "lowering your carbon footprint through eating more sustainable" makes up for a valid argument for the environmental and ethical consumer, it might not resonate with the Price-sensitive consumer. Therefore, your key message should be adapted to make sense for your target audience.

When creating the message of the campaign, you should remember the principle of communication. Messages should not only inform but engage and ideally motivate the target group to change their consumption patterns. This could mean aligning sustainability narratives with personal values — health, price, convenience, or environmental impact — depending on the audience.

A key message should align, not only with the target audience. It must also fit the chosen channel. While there is less room for text and long explanations on TikTok, this can be very useful on LinkedIn (and in fact encouraged by the algorithms).

Designing successful campaigns where you engage with your target audience requires that you take into consideration of "WHO" you are talking to, "WHERE" you may reach them, and "WHAT/HOW" you will reach them with a customized message.





## **5** Recommendations

This section provides a structured set of initial recommendations for communicating the sustainability of seafood products, tailored to specific consumer profiles and seafood categories. These recommendations form a foundational input to the forthcoming CEN Workshop Agreement (CWA), which will formalize a selection of these indicators for broader European application.

The table of initial recommendations (Table 1), which will be built upon and shaped further in the mentioned CWA process, sums up the initial efforts made to group and produce recommendations on how to efficiently communicate to specific consumer types and seafood types. In a CWA process, a selection of these indicators will be chosen along with their associated attributes.

Table 1 contains recommended information to highlight regardless of types in "Applies to different [...] type" (dark blue column and row), but also by consumer types: "Health conscious", "Environmental and Ethical" and "Familiarity driven", Level 1 seafood types from: "Fishery" and "Aquaculture", and Level 2 seafood types: "In need of preparation" and "Ready for meal". The intention of having the recommendations of information to highlight in a table is to make the crossing of chosen consumer types and seafood types visible. Chapter 6 contains two examples of how Table 1 can be put to use.

The foundation for these indicators is to communicate to European consumers whether seafood is nutritious and beneficial for health, produced without overexploiting resources and ecosystems, and whether the species is harvested or farmed in a sustainable manner. Indicators and attributes related to seafood are defined in report *D.2.1 Indicator framework defined* and *D2.2 Indicator framework developed* of VeriFish.





#### Table 1 Initial recommendations for what information to include to efficiently communicate to consumers about seafood

Initial recommendations for what information to include to efficiently communicate to consumers about seafood by information that can apply to different consumer types and different seafood types in general (in dark blue cells), and what could be effective to highlight for level 1 seafood types (fisheries and aquaculture), level 2 seafood types (in need of preparation and ready for meal) for three specified consumer types (health conscious, environmental and ethical, and familiarity driven) respectively, also including what type of media could be used for each consumer type.

	Consumer type □ Seafood type ↓	Applies to different consumer types	Health conscious	Environmental and Ethical	Familiarity driven
	Applies to different seafood types	+Species +Nutrition declaration +Certifications +Imposed +Independent +CO <sub>2</sub> eq/kg	+Nutritional claims - (e.g. +Omega 3 +High-quality protein +Micronutrients +Low Na) +Health claims - (e.g. +Cardiovascular health +Immune function) +Recommended acceptable daily intake (ADI)	+Climate change adaptations +Animal welfare measures	+Link with region/location - (e.g. +Local economy/businesses +Tradition (e.g. "in our region we`ve been xx since generations") +Historical culture)
L e	Fishery	+Harvest method/gear +Traceability (catch certificate)		+Stock status +FIPs +Habitat impact +Bait use	+Stock status
v e l 1	Aquaculture	+Traceability (producer ID, GTIN/QR code, WEB site)	+Production system +Feed (up for discussion) +Medication (antibiotics)	+Production system (interaction with environment) +Management compliance (areal, quantity limitations, work conditions) +Non-fed (up for discussion)	+Social licence to operate (esp. visual impact)





D4.1 Initial recommendation for how to efficiently communicate to consumers about seafood <u>verifish.info</u>

	Consumer type □ Seafood type ↓	Applies to different consumer types	Health conscious	Environmental and Ethical	Familiarity driven
L e	"In need of preparation"	+Showcookings +Preparation method (simple and quick)	+Healthy recipes	+Sustainable recipes	+Recipes with new species +Traditional recipes
v e l 2	"Ready for meal"		+Seafood percentage +Nutritional claims (added ingredients) +Suggestions for healthy side dishes +Allergens	+Suggestions for sustainable side dishes +Information on packaging sustainability	+Suggestions for other species that taste similarly
	Media types 🛛	Social media channels	Social media: How to cook and/or prepare a healthy mea short video/reel. Focus on vitamins and minerals and how it benefits your health. Releva social media platforms: YouTube, Snapchat, TikTok	Social media: From ocean/water t plate	Social media: "how to" cook sho reels/videos traditional dishes, and traditional dishes with a twist/similarities





## 5.1 Data quality

As described in *VeriFish D2.1. Indicator Framework Defined* (Astley, S et al., 2024), data quality is fundamental, and assessing quality in VeriFish include:

- 1. Relevance
- 2. Accuracy
- 3. Timeliness
- 4. Transparency
- 5. Comparability
- 6. Measurability
- 7. Actionability
- 8. Cost-Effectiveness
- 9. Stakeholder Inclusiveness
- 10. Ethical Considerations

Key prerequisites for any of the recommended communication strategies to be effective and of relevance is use of verifiable and reliable information. In Astley, S et al. (2024), data is classed into Tier 1 and Tier 2 data. Where Tier 1 data are "data sourced from publicly available sources", and Tier 2 data are "data provided by the fishery and aquaculture products (FAP) value chain». The seafood communication recommendations here include both Tier 1 and Tier 2 data. This is because the recommendations are addressed to those who fund the communication and possess, or have ability to obtain, Tier 2 data, and that the Tier 2 data in multiple cases is very desirable to highlight for showing actions done to increase sustainability.

The information to be communicated should be linked to the product by appropriate temporal and spatial scale. The internal natural and constructed dynamics related to the seafood information can vary greatly, and will consequently determine if, and how often, updating is needed.

As an example: lowering  $CO_2$  emissions can be a goal for many, hence updating analyses and information regarding  $CO_2$  eq/kg per product frequently can be a good idea to capture and document improvements. A different example, where updating analyses as frequently might not be appropriate (e.g. due to cost vs benefit), could be nutritional composition of whole seafood products. The composition can vary in time and space; hence a certain update frequency should be accounted for. However, it is reasonable to assume changes in nutritional composition of raw material to happen more slowly compared to changes where effort is put into making seafood more sustainable (e.g. lowering  $CO_2$  emissions), and therefore the need for updates to be less than in the former.

In cases where data quality is poor and/or spatial and temporal linkage is unsuitable, the best possible outcome of this document is that it may act as a call for improving data quality, including expanding spatial and temporal scale.





## 5.2 Information desirable to highlight regardless or required by law

Some attributes for seafood are either required by law and/or desirable to communicate, regardless of consumer type. Some examples include the required nutritional declaration on prepacked food, according to Regulation (EU) No 1169/2011<sup>10</sup>, common organisation of the market in fishery and aquaculture products Regulation (EU) No 1379/2013<sup>11</sup> and the use of catch certificates, required by Regulation (EC) No 1005/2008<sup>12</sup>, to show that the catch was acquired in compliance with applicable laws and regulations.

In addition, holders of third-party standards often have the possibility to use specific labelling which shows that they are approved in accordance with, or part of, a certification program. These should be highlighted where applicable.

Fisheries	Aquaculture
Marine Stewardship Counsil (MSC) - <u>https://www.msc.org/</u>	Aquaculture Stewardship Counsil (ASC)
Best Seafood Practices (BSP) - https://bspcertification.org/	Best Aquaculture Practices (BAP) https://www.bapcertification.org/
	Good Agricultural Practices (GLOBALG.A.P) https://www.globalgap.org/ GLOBALG.A.P

*Figure 1 Examples: third-party standards for fisheries and aquaculture.* 

#### **Examples Fisheries**

Marine Stewardship Counsil (MSC) - https://www.msc.org/

Best Seafood Practices (BSP) - Best Seafood Practices

#### Examples Aquaculture

Aquaculture Stewardship Counsil (ASC) - ASC International - Aquaculture Stewardship Council

Best Aquaculture Practices (BAP) - Best Aquaculture Practices

Good Agricultural Practices (GLOBALG.A.P) - GLOBALG.A.P. | Smart farm assurance solutions

<sup>&</sup>lt;sup>12</sup> <u>https://eur-lex.europa.eu/eli/rea/2008/1005/oi/ena</u>



<sup>&</sup>lt;sup>10</sup> https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=celex%3A32011R1169

<sup>&</sup>lt;sup>11</sup> https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02013R1379-20200425



# 6 Examples

## 6.1 Applicability of Table 1

This section contains two examples on how Table 1 can be used by seafood companies. First example concerns cod fillet products from fishery and second concerns seabass from aquaculture.

## 6.1.1 6.1.1 Example 1: Cod fillet products from fishery

There is a need to communicate and promote sustainable consumption of cod fillet products. The target audience is people with a low seafood consumption that are interested in consuming healthy protein rich food from the sea. We then focus on the *Health conscious* consumer type. Having cod fillets from fisheries, we then take the dark blue recommendations as a starting point and provide information about the species, nutrition declaration, certifications, and  $CO_2$  emissions. We also provide information about Nutritional claims, Health claims and recommended acceptable daily intake. The product type is in need of preparation, so we also provide healthy recipes. The media types that fit this type of promotion could be visual representation of nutrition facts, health claims, low on fat – fact sheets and more, ideal for social media (SoMe), product pages, and web site posters from the producer.

When crafting campaigns for cod fillet products for the *health conscious* consumer type, your channel and message should be adapted to the target group; the *health conscious* consumer type. Successful campaigns by the Norwegian Seafood Council have shown influencers illustrate how to cook and prepare fish fillet in short, entertaining social media videos. As the *health conscious* consumer is particularly interested in nutritional value, the benefits of the nutrients of the cod can be added during the cooking of the cod.

In all communication campaigns, it is important to address the target group either directly or indirectly. When creating social media videos this can be done through referring to issues or problems that the target group can relate to. For the *health conscious* consumer, a concern could be to include sufficient protein in their diet and increase their uptake of Omega-3 which can reduce inflammation. Adding information like this, presented as a problem or concern that the target group can relate to will increase their engagement in your campaign. One way to do this is to ask questions like "do you struggle with getting enough lean protein in your diet".

## 6.1.2 6.1.2 Example 2: Seabass from aquaculture

In the case of promoting farmed seabass to European consumers, we can focus on the *familiarity driven* consumer type, that would mostly consume cod, salmon, seabass and seabream, depending on their location. We then start from the dark blue recommendations and provide information about the species, nutrition declaration, certifications (if present) and CO2 emissions. Additionally, we provide information about the link of the product with the region it comes from and how this could influence the local economy, tradition and potential history-based storytelling about the area it comes from, preferably made to link in terms of parallels to the local or regional culture (e.g. fishing tradition).

Since it is farmed fish, information on licence to operate could be beneficial, and recipes that promote the tastes of this new species, close to some traditional ones, would be positive elements to consider. Social media is a channel well suited to introduce new species, evoke curiosity and explain in an educational and entertaining manner how to prepare these species. Short and catchy films could be an entertaining format for inspiring these consumers, suited to combine both the familiar (known recipes) with unfamiliar species. Short films are also a format that works well to present delicious and tasty





dishes. Several social media platforms' algorithms will help promote your content, if the format, the tags and your engagement hits the target group, showing tasty food films to hungry consumers.

## 6.2 Use of artificial intelligence

## 6.2.1 Generative AI as a Tool for Small Seafood Producers

Generative Artificial Intelligence (Gen AI) represents an exciting opportunity for small seafood producers to improve their communication and marketing. With limited resources and staff, these producers often face challenges in reaching a broader audience and communicating complex messages around sustainability and nutrition effectively. The most widely used AI tools today include ChatGPT (OpenAI), Gemini (Google), and Copilot (Microsoft). However, this technological revolution is evolving rapidly, offering applications and solutions across research, business, education, image generation, data development, and much more.

Al enables small and medium-sized businesses to market their own products cost-effectively with minimal resources, compared to large international players with greater financial power and daily access to such technologies (Haleem et al., 2022).

If choosing to use an AI tool, it is important to consider known weaknesses, such as the possibility that text or sustainability claims may be fabricated or contain factual inaccuracies. Incorrect facts or misleading claims in seafood marketing may be subject to EU legislation and would be considered illegal. Therefore, having your own knowledge and a solid source base is crucial. The European Commission provides an excellent online resource<sup>13</sup> that compiles knowledge across five key areas: Organisation of the Sector, Marketing Standards, Consumer Information, Competition Rules, and Market Intelligence. It is also important to take in to account the EU general data protection regulation (GDPR)<sup>14</sup>.

Today, AI tools can support marketing efforts in a cost-effective way, by helping with campaign planning, suggesting target segments, generating promotional materials, images, websites, and social media content in multiple languages. It also supports translations, budget estimations, and much more.

## 6.3 Testing ChatGPT for Campaign Planning

We tested the use of the ChatGPT 4.0 app from OpenAI as a tool to plan and execute a marketing campaign for a seafood product as a CASE. The purpose was to assess the quality and documentation of the AI-generated output. The overall framework was as follows:

- Create a marketing campaign for shrimp in the Swedish market
- Producer is a small company with 15 employees and an administrative staff of 3, including one person responsible for marketing
- The budget is €5000, and costs should be distributed across the recommended activities
- The tool should propose market segments and campaign activities
- The message must be health-oriented, legally compliant, and based on environmentally friendly and certified stock

<sup>&</sup>lt;sup>14</sup> The general data protection regulation - Consilium



<sup>&</sup>lt;sup>13</sup> <u>Seafood markets - European Commission</u>



## 6.4 Marketing Campaign Plan: Shrimp & 'Räkfrossa' in the Swedish Market

#### 6.4.1 Prompt

"I need to create a targeted marketing campaign for shrimp in the Swedish market related to the tradition "Räkfrossa". Please provide a complete campaign plan that includes audience segmentation, recommended activities, messaging, and budget distribution.

- Producer Profile:
  - A small seafood company with 15 employees
  - Administration team of 3 people, including one marketing responsible
  - Preference for low administrative workload
- Budget:
  - Total marketing budget: €5000
  - Distribute costs across the proposed activities with clear breakdown
- Campaign Objective and Message:
  - Promote fresh shrimp that are:
    - o Environmentally friendly caught
    - o From a certified stock
    - o Known for health benefits (e.g. high in protein, low in fat)
    - o In line with food safety regulations
  - The message must be truthful, engaging, and trust-building
- What I need from you:
  - 1) Suggested consumer segments to target in Sweden
  - 2) Recommended marketing activities and channels (e.g. social media, local ads, retailer partnerships)
  - 3) A core campaign message and optional slogan
  - 4) Budget breakdown by activity
  - 5) Use of free or low-cost European tools where appropriate

#### **Producer Profile**

- A small seafood company with 15 employees
- Administration team of 3 people, including one marketing responsible
- Preference for low administrative workload

#### Budget Overview

- Total marketing budget: €5000
- Costs are distributed across the proposed activities with a clear breakdown"

## 6.4.2 Result given by Chat GPT - Campaign Objective and Message

This campaign aims to promote fresh shrimp aligned with the Swedish summer tradition of 'Räkfrossa'. The shrimp are:

- Environmentally friendly caught
- From a certified stock
- Known for health benefits (e.g. high in protein, low in fat)
- In line with food safety regulations

The message must be truthful, engaging, and trust-building.





## **Target Consumer Segments**

- Summer Vacationers & Cottage Owners (Ages 30–65):
  - Looking for seasonal, social food experiences in coastal areas
- Restaurants & Caterers:
  - Require fresh, high-quality, certified shrimp for seafood events
- Young Food Enthusiasts (Ages 25–40):
  - Trend-aware and interested in sustainability
  - Highly active on social media

#### **Recommended Marketing Activities & Channels**

Social Media Campaign: 'Räkfrossa inspiration' via Instagram and Facebook (recipes, feast images, UGC<sup>15</sup> contest)

- Meta Ads: Location-based ads promoting shrimp freshness and eco-certification
- Shrimp Feast Packs: Bundle deals with shrimp and Räkfrossa-themed items
- Restaurant Collaboration: Posters, branded menus for seafood events
- Email Campaign: Tips, recipes, shrimp sustainability info (Brevo or MailerLite)
- Instagram Contest: Share your shrimp feast Win a shrimp pack!

## Core Campaign Message & Slogan

Core Message:

"Nothing says Swedish summer like a shrimp feast. Enjoy fresh, certified shrimp – good for your health, good for the sea."

Slogan Options:

- Taste the Summer The Shrimp Feast Starts Here
- Shrimp That Do Good For You and the Sea
- Fresh. Real. Certified.

## Budget Breakdown (€5000)

- Meta Ads: €1200 Targeted for 3 weeks in coastal towns
- Social Content & Contest: €600 Design + prize (shrimp pack)
- Restaurant Materials (Flyers/Posters): €400 Distributed to 10 partners
- Email Campaign: €250 Brevo or MailerLite setup + content creation
- Influencer Collaboration: €900 1–2 micro-influencers (Instagram)
- Design & Content Production: €550 Canva Pro, freelance support
- Contingency/Boosting: €1100 Flexible budget for performance-based spend

## Suggested Free/Low-Cost European Tools

- Canva (EU-based data storage available): Visual design
- Brevo (EU-based, formerly Sendinblue): Email campaigns
- MailerLite (EU/GDPR compliant): Email marketing and automation
- Meta Ads Manager: Facebook/Instagram ad targeting
- Freepik / Pexels (EU-supported): Royalty-free imagery
- Typeform (Spain-based): Forms for contests or product sign-ups

<sup>&</sup>lt;sup>15</sup> User Generated Content, like Photos, Video, Text and more





#### 6.4.3 Summary

This campaign connects the traditional Swedish Räkfrossa with sustainably caught, health-forward shrimp. It empowers a small seafood producer to reach consumers through culturally relevant, digital-first strategies using cost-efficient tools, with seasonal storytelling and targeted advertising at its core.





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# 8 Appendix

## 8.1 Rejected seafood types

Through the process of finding a suitable typology to differentiate seafood into types, several typologies were rejected, as mentioned in chapter 3's introduction. The rejected typologies where as follows:

- a. "Aquatic environment" e.g. by:
  - Marine
  - Brackish
  - Freshwater
- b. "Trophic levels" e.g. by:
  - Top Carnivores
  - 3<sup>rd</sup> level Carnivorous consumers
  - 2<sup>nd</sup> level Carnivorous consumers
  - 1<sup>st</sup> level Carnivorous consumers
  - Herbivorous consumers
  - Primary producers
- c. "Related species" e.g. by:
  - Fish (Osteichthyes and Elasmobranchii)
  - Molluscs/Crustaceans/Echinoderms
  - Algae (Primary producers)
- d. "Catch/harvest/production method" e.g. by:
  - Within level 1 seafood: wild catch/harvest e.g. by:
    - Gear impact
      - See D2.1 VeriFish Indicator Framework defined<sup>16</sup> and D2.2 Indicator framework developed<sup>17</sup>, and sources therein, for example of classification
    - Vessel capacity units (VCU)
      - No vessel
      - Lower range of VCU
      - Middle range of VCU
      - Higher range of VCU
    - Gear area of use
      - Demersal
      - Pelagic
  - Within level 1 seafood: aquaculture e.g. by:
    - Production system

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<sup>&</sup>lt;sup>16</sup> Astley, S et al. (2024) VeriFish Indicator Framework Defined - D2.1. (1.0). Zenodo. https://doi.org/10.5281/zenodo.14384281

<sup>&</sup>lt;sup>17</sup> Marketakis, Y et al. (2025) VeriFish Indicator Framework Developed- D2.2. due by April 2025



- See D2.1<sup>18</sup> and D2.2<sup>19</sup>, and sources therein, for example of classification
- Feed input
  - See D2.1<sup>18</sup> and D2.2<sup>19</sup>, and sources therein, for example of classification
- e. "Certified or not" e.g. by:
  - No third-party certification or improvement program
  - Improvement program
  - Third-party certification
- f. "Storage and distribution condition"
  - Fresh
  - Frozen
  - Refreshed
  - Canned
- g. "Level of processing" e.g. by:
  - Little or none processed
  - Medium processed
  - Highly processed
- h. "Additional nutrients" e.g. by:
  - Little or none additional nutrients
  - Less than 50% additional nutrients
  - More than 50% additional nutrients

The rationale for rejecting most of the typologies is that they are difficult to reconcile with consumer types. By this we mean we would not be able to give different recommendations on what to focus on in communicating sustainability on the different types of seafood to different types of seafood consumers.

In addition, in rejected typologies a., b. and c. different seafoods would be "forced" into a more or less suitable category where the factors relevant for sustainability of the seafood would not necessarily differ from one type of category to another.

For the rejected typologies d. and e., which are based on technical features, certifications and improvement programs, it is more likely that the differentiation is a part of the evaluation of specific indicators, than being the typology in itself.

The last three rejected typologies (f., g. and h.) are most like the chosen level 2 typology "purchasing purpose". Rationale behind rejecting these in favour of the chosen typology is due to best match with the mentioned "Jobs-to-Be-Done" theory.

<sup>&</sup>lt;sup>19</sup>Marketakis, Y et al. (2025) VeriFish Indicator Framework Developed- D2.2. due by April 2025



<sup>&</sup>lt;sup>18</sup> Astley, S et al. (2024) VeriFish Indicator Framework Defined - D2.1. (1.0). Zenodo. <u>https://doi.org/10.5281/zenodo.14384281</u>