

Labelling of plant-based seafood substitutes

Scope and issues at stake



In recent years, **plant-based food substitutes** have emerged as a rapidly growing market, and seafood is no exception. Plant products designed to imitate the appearance, taste or nutritional properties of fisheries and aquaculture products have increased in popularity, supported by arguments such as environmental sustainability, health benefits and ethical merit against animal-based foods. Traditionally, plant-based seafood substitutes are derived from ingredients that include soybeans, wheat gluten, mushrooms, rice and legumes. These **vegetable proteins** are then further **processed** with

various ingredients, including salt, fat and colouring agents.

The seafood sector now faces increasing competition from these novel products, which raises some key challenges, especially with respect to labelling practices. One central concern consists in making a clear distinction between seafood and plant-based products, in order to not only **prevent misleading of consumers**, but also to **avoid safety issues**. The present study aims to:

- Provide a snapshot of the **current state of play** in the development of plant-based substitutes for fisheries and aquaculture products;
- Discuss potentially misleading **labelling practices** in the EU market as regards plant-based substitutes for fisheries and aquaculture products;
- Review the **EU legal framework for labelling** of plant-based substitutes for fisheries and aquaculture products.

The present document is the executive summary of the study on "Labelling of plant-based seafood substitutes". The full study, which is available in English can be downloaded at: <https://bit.ly/3ZcBTTc>

To document the progressive entry of firms into the *plant-based* seafood substitutes market, the study has identified 102 companies, supplying 228 different products. These companies are based in 26 different countries, including **12 EU Member States**, which account for around **47% of the firms** listed. Initially the *plant-based* seafood substitutes produced by these companies were distributed mainly in specialised shops and online. However, they are now mostly supplied by major retailers, whether in North America or in the EU. As from 2022/2023, the market has been characterised by two key trends:

- Large agrofood companies have entered the market;
- Several leading seafood-processing companies have diversified their supply with the development of plant-based products.

The study provides an analysis of the main types of plant-based seafood substitutes supplied on the market, in particular as regards the species imitated, the ingredients used and the production methods.

- The main species imitated are **tuna, whitefish** (for fish finger-like products), **salmon, shrimp and crab** (with crab cake and similar products mostly sold in the North American market). These species account for around 78% of the 228 products listed in our database. This finding is in line with the actual consumption of genuine seafood products in the EU, which indicates that the companies involved in the plant-based seafood substitutes' market supply competing products, often referring to the original counterpart during the marketing process.
- Soy, pea and wheat are the main products used to obtain protein. Starch-based ingredients are often used for shellfish alternatives, with konjac being one of the key ingredients of this category. Additives are always needed, which can include salt, fat or any other ingredients which are in general not in line with the characteristics of authentic seafood products. The use of allergens and imported ingredients might raise concerns for some EU consumers, especially if they are interested in local and safe products. The production of plant-based seafood substitutes required several industrial steps, which can challenge the natural, organic or vegan nature of the products.

As far as consumer information is concerned, seafood products must abide by the marketing and labelling rules laid down under the **Common Market Organisation (CMO) Regulation 1379/2013**, as well as the **Food Information to Consumers (FIC) Regulation 1169/2011**. Conversely, plant-based substitutes only have to comply with the FIC Regulation, as any other foodstuffs on the EU market, except if made from seaweed or algae.

Notably, prescriptions laid down under Article 7 on fair information practices the FIC Regulation provides that "*Food information should not be misleading*", inter alia, as to the nature and the identity of the food (paragraph a) or by suggesting, by means of the appearance, the description or pictorial representations, the presence of a particular food or an ingredient which actually has been substituted with a different one.

The analysis of packaging collected by the study presents a wide range of examples of potentially non-compliant practices. Based on our analysis, 45% of the products are using **invented names** suggesting a relation with seafood, most often with little information to provide a fully descriptive denomination. In 57% of the cases, a **direct reference to the terms 'fish' or 'fish species'** is made, with only 13% of the cases clarifying the link between the invented name and the fish species name.

According to national measures adopted in France and Germany, the names 'fish' or 'fish species' should not be used, except if sufficient information is provided to fully inform the consumers about the nature of the products. In general, **forbidding the use of the commercial designation of aquatic species** for a product that does not contain seafood would clearly avoid misleading practices. As for products using invented names, **additional information should be required** to fully comply with Article 36 of the FIC

Regulation, especially when the ambiguity generated by the name is reinforced by the use of a picture imitating the genuine corresponding seafood product.

A possibility to further facilitate both the marketing strategies of the producers and the consumers' choices could be to **impose the name of the main ingredient(s) used**, as suggested in the guidance for industry issued in the US, but also by current marketing practices in the EU agrofood sector. Such an approach would clearly indicate the nature of the product, providing better information to the consumer than only indicating 'plant-based' or 'vegan'. Also, to avoid misleading of consumers and maintain a level playing field with genuine seafood products, the origin of the ingredients and the **level of processing could be indicated** systematically on the package. In the same vein, when there is a claim on the package indicating that the product contains Omega 3, a clarification such as "enriched in Omega 3" would help the consumer understand that the product does not naturally contain Omega 3.

Further information

This executive summary is available in the following languages: English, French, German, Italian, Spanish and Polish. The study, which is available in English, and the summaries can be downloaded at: <https://bit.ly/3ZcBTTc>

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