

# What influences seafood consumption?

Seafood consumption varies greatly across Europe. Annual per capita consumption ranges from 8 to 60 kg and there is a downward trend in some countries. We can only make assumptions as to why seafood is rated more highly in one country and less in another. We lack an exact overview and we lack exact comparable data. In the context of the project Seafoodplus, European researchers now want to find out what influences seafood consumption and how this may be increased.

**W**hat factors influence seafood consumption? Why do older people eat more fish than young people, and why is fish served at mealtimes more often in Iceland and Spain than in Germany and Holland? These are fundamental questions which are of great significance to industry, in particular, because a company that knows what makes a seafood product attractive or off-putting for consumers can better customize his products and offer better targeted information on the food's benefits. From market and consumer research from the past we know that it is mainly three factors which influence the acceptance and choice of seafood products. Firstly, specific product features, such as appearance and flavour, image, price and product form. Secondly, the consumer's own personality, for example his education level, social status, and income. And thirdly, our environment influences whether, what kind of, and how much seafood we eat. When on holiday in Italy consumers sooner choose seafood than in the company canteen where the menu is often monotonous.

Up to now, these three factors



From left, Isabelle Vackier (UGENT), Wim Verbeke (UGENT), Domingo Calvo Dopico (UDC), Adriaan Kole (RIVO), Svein Ottar Olsen (NIFA), Rian Schelvis (RIVO), Grethe Hyldig (DIFRES), Kjell Toften (NIFA), Lisbeth Fruensgaard Jeppesen (MAPP), Emilia Martinsdottir (IFL), Conor Delahunty (UCC), and Karen Brunsø (MAPP).

have mainly been considered separately in market studies. The research projects in Pillar 2 of SEAFOODplus will tread uncharted waters here: their starting point is not the product, but the consumer and his/her desires, expectations and demands, and the way these demands can be linked to seafood products in a cross-culturally valid way. This is a new, interrelated, and complex approach which will provide the seafood industry with information to guide the production of products for a particular target. It can be said that Pillar 2 is the first step on the way to tailor-made products that better meet the desires of the consumer.

## Consumer study in European countries

RTD Pillar 2 of the SEAFOODplus project comprises four different projects, each of which is complete in itself but also supplements the others. One of the projects is a cross-cultural consumer study (baseline study) that will take into account different consumer groups across Europe. It will offer information on the preferences and expectations of European consumers as regards seafood. Some of the results will form the basis of the three other projects within this pillar. There will also be numerous links to other RTD Pillars of SEAFOOD-

plus. Prior to their investigations the participating researchers succeeded in clearing away one stumbling block at the kick-off meeting at the beginning of February. This obstacle had to do with the term 'seafood', which has a very wide range of meanings. Consumers in the different individual regions of Europe interpret the term very differently – fish is often seen as something completely different from shellfish or crustaceans. And to some consumers, the term seafood directly translated does not mean anything at all. In the interests of exact, comparable results the researchers agreed that during the first 18 months of the studies they will concentrate solely on fish and only later decide how other seafood products can be included.

The projects in Pillar 2 will be coordinated by Dr Karen Brunsø from the MAPP Centre at the Aarhus School of Business. One of her tasks will be to make sure that the consumer study is carried out according to uniform standards in the individual European regions and that the deadlines are adhered to. This is important because other investigations planned in the context of SEAFOODplus are based on the results of these surveys. The other three projects in Pillar 2 will also extend and deepen the results of the baseline study. For example, they will clarify questions about what food quality actually is in the case of seafood, what influences this food quality, what features a new product must have for it to be accepted by the consumer, and which product information the consumer really needs. Does the consumer actually read and understand the information and instructions written on the label? What can be done to improve communication between the

seafood industry and the consumer and make it more effective?

**Project 2.1 Consumer survey**

Why does one person like seafood and another not? Which factors influence the consumer when choosing food products in general and seafood in particular? In this project the researchers will be looking for motives and barriers that influence seafood consumption. At the centre of the project are consumer surveys that will be carried out in several European countries. They will not only reveal common interests and differences in European consumer behaviour but will also document the consumers' desires and expectations of seafood products. The focus will be on connections between seafood consumption and lifestyle, health value of the products, and the question as to how seafood influences the consumer's well-being. The study will be carried out in two main blocks. An initial survey will take place during the first 18 months (wave one), a second is expected to take place in the third year (wave two). In the results of the survey in wave one, seafood consumers will be divided into cross-cultural groups, so-called consumer segments, according to their preferences and characteristics. The individual segments will differ not only with regard to their priorities in relation to seafood but also in information needs regarding the products. This differentiation is a fundamental prerequisite for being able to better adapt seafood products to consumer requirements.

The second survey (wave two) will filter out trends in relation to what consumers expect from seafood products. The results of this second survey will thus go beyond the conclusions drawn from the

first. There will also be a possibility to question consumers on their opinions concerning the first results of the SEAFOODplus projects. Many of the other projects are based on the results of the consumer surveys so that these will supply the theoretical framework for subsequent analyses.

**Project 2.2 Seafood sense**

This project deals with the development of consumer oriented Seafood Sensory Quality Models, and aims at supporting the industry in its efforts to improve the sensory quality of seafood products. It will be realised in three work stages. Block 1 will investigate consumer preferences in relation to food quality of the products. Which features do they particularly value in fish and which less? With the help of a special method called 'preference mapping' the preferences of the consumer will be isolated. Of particular value here is the fact that these data are collected together with other information on the consumer groups. Block 2 concerns the development of Seafood Sensory Quality Models. The decisive question here is how the quality of a product changes in the course of the value-adding chain from the raw material to the consumer and which are the critical factors during this process. To this purpose, key decision makers will judge quality at each stage of production right up to the end consumer who is responsible for the 'final' decision. The evaluations in which experienced trained panels will also participate will be made in a similar way to the well-known Quality Index Method. Finally, in Block 3 the developed Seafood Quality Models will be applied and implemented in practice. Small and middle-sized companies taking part in the project will be able to use the findings in the development of new products,

during storage, distribution and marketing. Not only the researchers hope that the models will lead to a noticeable improvement in quality and to higher consumption. Block 3 can only start after the first 18 months because the models are required as a basis.

**Project 2.3 Sea-Infocom**

This project is about information on seafood products and how such information can be better communicated. The problem is familiar: on the one hand, consumers are inundated with a flood of information. Traceability, health benefits, consumer safety or ethical problems such as acceptable husbandry, to name but a few. On the other hand, the information is often incomplete, hard to access, sometimes misleading, not standardized and, on top of that, causes additional costs to the producer. And this will be the focus area of the study, for well thought-out information makes sense and offers producers the possibility of standing out against competitors. The project will be realised by four detailed investigations for which special methods will be developed during the first 18 months.

Block 1 will outline the theoretical framework and specify questions in connection with information and communication. Although this block is based on existing models these must be developed further in relation to communication about seafood.

Block 2 deals with empirical studies into consumer interest in traceability, and will examine consumers perception of traceability data. Firstly, a descriptive survey will be carried out which will reveal what information is necessary and how this information can be made more accessible. In a second study the modi-

fied data will be tested on consumers to see if they better meet his need for information. Block 2 will extend over 2 18-month periods.

Block 3 on empirical studies into seafood health, safety and ethical information will test what effect different information content, formats and media may have on the consumer. This block is closely linked to RTD Pillar 1 and Pillar 3 (Risk perception).

**Project 2.4 Consumer evaluate**

This project will create a platform with which data on consumer behaviour towards seafood products can be collected and evaluated. For example, how important is it to consumers whether a fish comes from a sustainable fishery or from a farm? Does acceptable husbandry have an influence on buying behaviour? Or doesn't it matter at all as long as the final product has a high convenience grade and is particularly healthy? The researchers will find answers to these and other questions via consumer surveys, tests in the home, at supermarkets, and specific experiments.

In Block 1 a platform for the surveys and behaviour studies will be developed. Among other things, it should serve to identify critical points which consumers find particularly disturbing or unpleasant. In the subsequent Block 2 (Consumer preferences and willingness to buy convenience and tailor-made seafood products), for which 30 months have been planned, consumer behaviour will be tested using real products. This block, which is closely linked to Pillars 4 and 5, will cover different situations and geographical regions.

*Regularly updated information can be found at [www.seafoodplus.org](http://www.seafoodplus.org).*