

## “EUROSALMON”

### Towards an improved quality of smoked salmon for the European consumer

*Over 80% of the world's production of farmed Atlantic salmon is farmed in Europe. About 40% of this quantity, or above 250 000 tonnes, is smoked. Due to the wide range of characteristics of the raw salmon as well as to the many salting and smoking techniques used by different processors, a wide selection of smoked salmon is now available on the market, varying in odour, aspect, flavour and texture.*

*However, there is a lack of criteria available for consumers to choose a product according to their preference. Moreover, concerns from smoked salmon producers have risen regarding the flesh quality and suitability for smoking of salmon that is farmed today.*



The main objectives of the EUROSALMON project were to **improve the quality of smoked salmon** by enabling the European industry to deliver salmon with adapted quality to the different market segments in Europe and to **establish the necessary technical base** to understand the effects of process parameters on the final quality of smoked salmon.

To gain knowledge about consumer preferences, a market survey was conducted in the five main European countries of consumption (France, Germany, United Kingdom, Belgium and Italy).

At the same time, multidisciplinary research activities were carried out in a continuous chain - from farming to the consumer - using physical, chemical, microbiological and sensorial measurements. These product characteristics were then linked to consumer preferences and to the main quality problems related to smoked salmon products (like fat leaking in processing and colour fading during storage) in order to **adapt the product to the demand**.

Results showed that European consumers could be classified into 5 groups according to the sensory

characteristics of smoked salmon they prefer. The composition of these classes is not strongly related to their nationality, but in each class a higher proportion of consumers from specific countries could be observed. This conclusion should allow the **industry** to adapt its production according to this demand and to the specificity of the country.

For the **consumer** to be able to choose the product that suits his preference, more information could be added to the label of smoked salmon, for example about the level of smoking and the salt concentration, two criteria that seem to be discriminative, besides appearance. Food safety is also an important issue for consumers: in some of the smoked salmon samples in this study, a high bacterial load was detected, which should be ample reason for the smoked salmon producers and retailers to take a close look at their processes.

**Project acronym:**

EUROSALMON

**Full title of Project:**

Improved quality of smoked salmon for the European consumer

**EU contract number:**

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**Web-site:**[www.mmedia.is/matra/eurosalmom](http://www.mmedia.is/matra/eurosalmom)**Coordinator**

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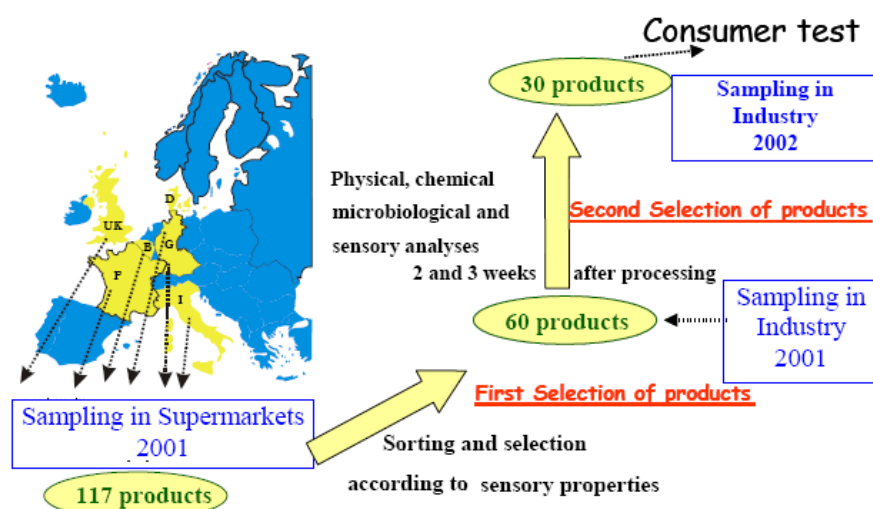
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This study has made it possible to identify the effects of several process parameters on smoked salmon quality. **Salting techniques** appear to be the main factor involved in yield and sensory characteristics; a clear effect of injection salting on quality has been observed. In addition to this, the use of **pre-rigor filleting** techniques as an alternative procedure for industry has been suggested: while final product characteristics are similar to those obtained with post-rigor filleting, transport costs are reduced and needed jobs are created in rural and coastal communities. Moreover, the improved quality, adapted characteristics and savings in the production chain due to lesser transport of fish head and bones resulting from this project are sure to **improve the competitive position** of European countries against large importers such as Chile.



SALMON FILLETING. SOURCE: AQUATOURL.

“A MARKET SURVEY WAS  
CONDUCTED IN FIVE  
EUROPEAN COUNTRIES”



GENERAL ORGANISATION OF THE MARKET SURVEY. SOURCE: EUROSALMON FINAL REPORT, AVAILABLE FROM THE WEB SITE.