Validation tools for traceability – ensuring quality and safety and preventing fraud in the seafood chain

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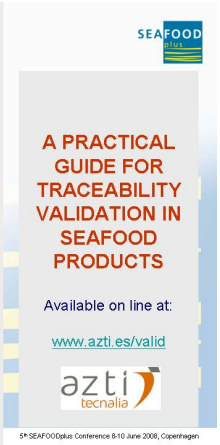

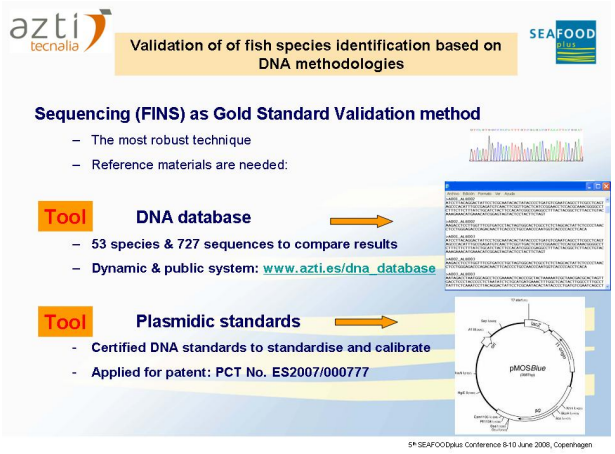

The general objective of the project VALID is to define a validation model for obtaining seafood traceability along the whole chain that could be considered as a guide and reference by all the agents involved in the fishery chain as well as by the control authorities. Several traceability tools have been developed to attain this objective:

A Practical Guide for the Validation of Traceability in the Seafood Chain:
A guide specifically directed for the seafood sector has been published as a web page (http://www.azti.es/valid/). The guide contains the map of indicators of efficiency and reliability of the traceable information for each link of the fishery chain. It gives references to the official methods when approved and to the alternative methods when available. The guide presents a summary for each of the validation tools that have been studied within the VALID project. The summary discusses the state of the art for each methodology and gives some interesting information about the existing reference methods and other techniques at developmental stage as well as links of interest to get further information or for assessment. The final aim of the guide is to allow verifying that all the critical information is tracked and the reliability of this information validated, becoming a tool for the traceability validation in a specific link on the chain or for the whole chain.

Validation of fish identification methodologies based on DNA analysis:
In order to assure authentication methodologies and specifically DNA based techniques, quantifiable reference materials as validation tools in the form of plasmids have been developed. A pool of **plasmidic standards** have been prepared to be used as reference materials by specialised laboratories and fraud agencies in their DNA techniques for fish authentication. This development has been submitted for a patent application. An Interlaboratory Ring Test has been organised involving 12 research centres and institutions having genetic fish identification services offering authentication analysis to fish industry. At the same time, a **dynamic DNA database** including more than 700 DNA sequences from 53 commercial fish species has been made accessible free by internet http://www.azti.es/DNA_database/.

Validation of 2 complete seafood commercialisation chains:
A practical exercise on real commercial chains has taken place, in order to validate quality specifications, preventing fraud and ensuring correct data management and information flow. South African hake and Pacific tuna imported to Europe have been the chosen chains. A cooperation with another EU project has taken place in the trails by incorporating innovative flexible tag datalogger with integrated sensors developed in the IP-GOODFOOD.