



The development of **SPECTRAFISH**, a rapid and accurate inspection system capable of visualising the spatial distribution of quality and safety attributes of fish products, will represent a major advance for the European finfish industry. It will provide fish processors and traders with additional brand security, whilst increasing the competitiveness of the sector and enhancing consumer confidence in their products.

www.spectrafish.eu

The research leading to these results has received funding from the European Community's Seventh Framework Programme (FP7/2007-2013) managed by REA Research Executive Agency under Grant Agreement n° 605399.

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Specim



**HYPERSPECTRAL IMAGING
FOR THE INSPECTION
OF FISH FILETS**

Spectrafish



Today, the quality assurance and safety of fish products are achieved by a multitude of tests for external and internal parameters. Such on- and off-line methods are invasive, labour intensive, time-consuming, costly and sometimes inconsistent.

Consumers have increasing expectations for food products of **high quality and safety**, and so there is a growing need for fast and objective assessment methodologies.



By integrating conventional imaging and spectroscopy into a unique technology, hyperspectral imaging collects spatial and spectral information from an object simultaneously. This technology requires no sample preparation and offers the advantages of non-invasive measurement, rapid data acquisition and the capability to visualise the spatial distribution of numerous quality and safety attributes, thus providing the answer to the question of "where is what".

SPECTRAFISH, a two year industry-driven applied research project, funded by the European Commission under the Seventh Framework Programme, will develop a hyperspectral imaging system for the inspection of finfish products.

SPECTRAFISH aims to develop a novel hyperspectral imaging system for the simultaneous quantification and visualisation of several safety and quality attributes of finfish.

During the first year of the project, a laboratory test-rig will be used to match hyperspectral image features with reference values measured with traditional methods for a range of selected parameters critical to fish quality. During the second year, a hyperspectral imaging system, capable of on-line operation, will be built and validated in industry for the rapid, non-invasive and simultaneous measurement of several safety and quality attributes of finfish products.

