

**Title** Modelling the operator know-how to control sensory quality in traditional processes  
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### **Abstract**

Traditional foods are generally manufactured in small factories where operators often play an important role: (1) to make on-line evaluations of the properties of foods and/or (2) to adjust the process variables to ensure a smooth running of the process and respect of the quality requirements. The paper presents the methodological guideline we have developed to manage the expert-operator knowledge for controlling the sensory quality of food products. It involved several steps: collection of sensory measurements, instrumental measurements and heuristics controlling rules; modelling of the operator know-how by using suitable mathematical tools such as fuzzy logic or expert systems; development of decision support systems, easy to use by the operators. The principles and the results of the method will be illustrated by examples of traditional processes: dry sausage processing and biscuits aeration. As a conclusion, the main interests of the approach are underlined: traceability of the practices, safer measurements and practices, formation of inexperienced operators, increase of the reliability in the decision of the operators and valorisation of their role.