

Electronic nose: transition to quality conscious thinking



Intertaste has more than 80 years of knowledge and experience in natural herbs and spices. As a leading expert in flavour, the company supplies a wide range of flavourful products, both food ingredients and finished products, to major players in the food industry.

Global quality awareness

Over the past 3 years, the organization has undergone a transition from limited awareness of sensory attributes to a broad quality awareness. By investing in an electronic nose (e-nose) in 2014, the company made a huge leap which distinguishes them from their competitors on the market with regard to quality.

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Marc Jansen, Spices Flavourist at Intertaste explains: "I noticed that there was limited knowledge in the company on sensory attributes and that an analytical basis was lacking. People here thought that pepper was just pepper and cilantro just cilantro. We had to invest in people in order to show that one coriander is not the other. You taste and smell differences when the raw materials are from different geographical origins. The first step consisted of creating a sensory panel 3 years ago: out of 32 people selected from various departments (quality, product development, business people and even members of the board), 16 are now experts in assessing herbs and spices

based on 56 attributes. The tests conducted by this sensory panel contributed to an improved quality awareness of our products. Moreover, we noticed that there was still questionable material on the market. This is why we needed to carry out further investigation of our products to find out what was going on.”

Intertaste

Intertaste
driven by flavour

Activity

Production of herbs, spices and flavors for the food industry

Context

Need for an analytical method to correlate the chemical flavour composition of spices to sensory perception and to secure knowledge about flavors.

Equipment

HERACLES Electronic Nose

Website

<http://intertaste.eu/>

Investment in electronic nose

"We searched for an interesting analytical tool that could give us information about the components present in our herbs and spices, in order to correlate the chemical composition to the sensory perception from the panel. Combining a proven fast GC technique with statistical data processing and a library of compounds based on sound research literature, the HERACLES electronic nose from Alpha MOS was the perfect solution for our needs."

Secure knowledge, secure product



"The good thing about the E-nose is that you acquire a lot of knowledge and data. Even if the analyst leaves, you retain your knowledge base. If you only work with a sensory panel it is different as you need to gain knowledge again when someone leaves. In the long-run, the E-Nose assures product quality based on a historical database. The instrument guarantees the quality and

authenticity of our products; we are able to deliver transparent and honest products that match the expectations of the consumer."

Future perspective

"We are now building a database for each flavor material based on the analysis of different batches over the years, with the sensory panel and HERACLES instrument, to determine the relevant sensory attributes and chemical compounds. Once we have completed this work, we plan to train the sensory panel in assessing blends. Combined with E-Nose measurements I expect that we will thus build up a wealth of information that we can use when developing new products and in assessing products from competitors", says Marc Jansen.