

A new strategic alliance between NIZO and ICBD for the benefit of the alcoholic beverage industries



Keep your brand alive

Many consumers are emotionally attached to their own beverage brand of choice.

Therefore it is essential for the beverage industry to keep their customers satisfied by both image and product performance.

Most alcoholic beverages are local products that have a traditional background of many hundreds of years.

Nowadays, as a result of globalisation brands are sold worldwide thereby challenging the shelf life, new production scales and new world tasters with a different flavour background.



By facing new insights and rules regarding health and sustainability there is a strong need for the alcoholic beverage industry to invest in innovation in order to keep their brands as the customer favourites.

Therefore NIZO food research and the International Centre for Brewing and Distilling (ICBD) have decided to cooperate to help the alcoholic beverage industry with their necessary innovation for premium tasting products.

An optimal flavour is a proven re-buy!

Your benefits

- New opportunities to develop new premium products like:
 - "optilow" alcohol beer
 - low "carb" products
 - more taste - less matured spirits
 - new world tasting spirits
- Applicable solutions from lab to factory.
- Screening and selection of new "flavour" yeasts and LAB by micro-scale alcoholic fermentation.
- Safe and optimised fermentation processes by controlled population dynamics.
- Increased protection for deodorisation (shelf life) or masking of existing off-flavour problems.
- Optimise and control your production through process modelling.
- Courses and consultancy on flavour, process and brewing/distilling issues.
- One-stop shopping

Our technology & expertise

NIZO food research and ICBD supply a list of services, expertises and facilities consistent with the standards required in the local, national, and international markets.

Flavourlytics

Flavour profile sensory panel

ISO certified sensory panels trained and experienced for more than 6 years to analyse flavour profiles of food products on both locations.

FlaQCi

Development of flavour quality methods and predictive models for quality control of ingredients and end products.

SOIR & STAR

Procedures to define the key-aroma or key-taste compounds of the product flavour. It consists of sensory evaluation, olfactometry (GC/O or TDA), identification and recombination tests.

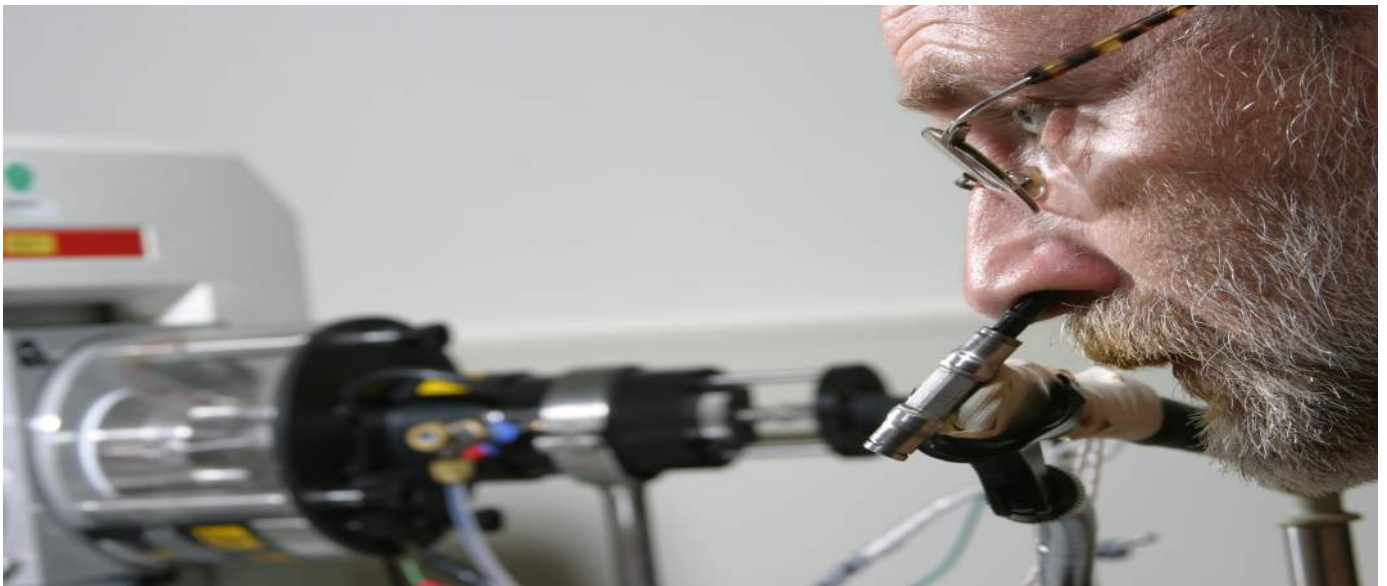


Mouthfeel & Astringency

Unique experience and expertise in applied physics and ingredient technology in beverages. State of the art methodology to quantify smoothness, lubricating, body and astringency

In vivo measurements.

NIZO food research has built a unique and highly specialised *in vivo* lab. This marriage of humans and analytical instruments has proven to be a unique approach for a fast development of your future products. It includes the new Olfactoscan® for the screening of masking and enhancing compounds.



Fermentation

Brewing Microbiology

Wide ranging expertise of systems and solutions for process, product and dispense microbiology



Micro-scale alcoholic fermentation

Semi-automated screening facility for selection and characterisation of yeast and LAB culture collections in product matrix. (i.e. brewing medium)

Mixed culture composition, identity and dynamics

Combined molecular and physiological approach for rapid analysis of microbial populations during processing. Detection, identification, and quantification of undesirable organisms.

Integrated genomics approach to predict and optimise

Expertise on metabolic pathways in combination with BioIT tools and techniques enable in silico prediction of fermentation optimisation strategies.

About NIZO food research, Ede, Netherlands

NIZO food research is a leading research company, assisting industry with solving technological issues for innovations in the areas of flavour, texture, health, food safety and processing, thus building sustainable competitive advantage. The food-grade pilot plant is used for development and testing at industrial level and is available for toll manufacturing.
<http://www.nizo.com>

Brewery and Distillery Yeasts and LAB

A large culture collection (~4000) of food grade LAB and yeasts, potentially available for licensing.

Pilot plant and Upscaling Pilot Brewery

The experimental plant includes three brewing vessels which can be used for the production of ale or lager wort, and malt or grain distillers mash, from a variety of raw materials. The fermentation and conditioning tanks are designed for beer or spirit production.

Pilot Distillery

Two pot stills, each of 20 litre capacity, complete the production facilities. A full range of analytical equipment lies alongside the experimental plant in neighbouring laboratories, and there is a special room for tasting and nosing.

Pilot-scale fermentation

Pilot-scale fermentation facilities. Besides the brewery and distillery facilities at ICBD, the NIZO pilot plant offers fermentation vessels and facilities at different sizes for starter trials and production of (novel) starters.

Micromaltings

The micromaltings allow the production of sufficient raw materials for up to a 200 litre brew-length.

Wort and Beer Centrifuge

The centrifuge is used for yeast cropping and wort clarification and it expands the pilot brewery capacity. The centrifuge facilitates a number of new investigations including the examination of the effect of shear on yeast cells.



Sustainability

Generate value from waste or side streams.

NIZO and ICBD can assist in finding applicable and feasible solutions for adding value to waste and side streams.

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About ICBD, Edinburgh, UK

The International Centre for Brewing and Distilling (ICBD) is a unique teaching and research facility. The centre is based on a partnership between industry and University, and makes up part of the School of Life Sciences located in the Riccarton campus of Heriot-Watt University, Edinburgh.
<http://www.icbd.hw.ac.uk/index.php>