Titel des Posters: Novel Flow Focusing technology to produce microencapsulated bacteria and culture starters for the food sector (FLOCAP).

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Eine maximal einseitige Zusammenfassung des Posterinhaltes:

Introduction
Probiotics are helpful bacteria which contribute beneficially to human health in the gastrointestinal tract. Probiotic food must contain probiotic bacteria in sufficient number and with high viability when reaching the human intestine, where they deliver the beneficial effect. However, bacteria are sensible to stress and extreme physiological conditions, thus it is difficult to ensure the necessary viability levels in food products.

Objectives
The overall objective of FLOCAP is to develop a bacteria microencapsulation device based on the innovative Flow Focusing technology. The gentle operating conditions will ensure high bacterial survival rates while achieving at the same time particles less than 30µm (under the consumer sensory perception). The microencapsulated bacteria are effectively protected by an adequate polymer coating thus enabling them to reach the human intestine with the necessary viability level.

Flow Focusing Technology[1] applied
The Flow Focusing Technology relies on a new observation relevant to the physics of fluid mechanics. Specifically, a funnel-shaped lens of gas is created when a flowing gas produces a pressure drop across an orifice. By introducing a flow of liquid into the opening of this funnel, a steady, thin jet of liquids is created which rapidly breaks up into droplets of very small size.

Conclusions
FLOCAP project is thus providing the opportunity of developing a new broad range of probiotic food products.

References
[1]Cebolla, A. and Ganán-Calvo, A. Ingeniatrics Tecnologías SL (Sevilla, Spain) / Escuela Superior de Ingenieros. Universidad de Sevilla (Spain).

Project partners
Ingeniatrics Tecnologías S.L. (Spanien), MICAP GmbH (Bremerhaven), PROBI AB (Schweden), Meierei Genossenschaft e.G. Langenhorn, CONFIPACK S.A. (Spanien),

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