



Algemene gegevens	
TKI-Nummer	AF-EU-15009
Titel	i3-Food
Topsector (A&F of T&U)	A&F
Projectleider (onderzoek)	Ariette Matser
Contactpersoon overheid	Cor Wever (A&F)
Status (lopend of afgerond)	Lopend
Type onderzoek (F, T of V)	Toegepast
Werkelijke startdatum	1 april 2015
Werkelijke einddatum	1 april 2018
Korte omschrijving inhoud	i3-food is an European project, which main objective is the implementation of 3 innovative food processing technologies, assuring the validation of optimum process control under industrial conditions.

Highlights
<p>The main objective of i³-Food is the implementation of 3 prioritised innovative food processing technologies by validation of optimum process control under industrial conditions: 1. Pulsed Electric Field preservation (PEF-P) of liquid food products(TRL 7-8); 2.High pressure thermal sterilization (HPTS) (TRL 6-7) and 3. Low shear extrusion of cold food products (TRL 6).</p> <p>A congeneric set of both technical (missing online sensors) and process conditioned bottlenecks (missing application of HACCP concept) does exist which hinders their uptake by industry and in the market. Therefore, optimum process control will be achieved in i³-Food leading to application under real life operating conditions by demonstrating and piloting in a near to operational environment of applicable validation systems for each technology.</p> <p>Six well selected industry partners, thereof four SMEs, strongly support the approach and contribute as technology provider or technology applicant.</p> <p>In 2016 the first parts of the roadmap were realised, this includes the drivers and barriers that can enhance or hinder market uptake. This was investigated for all 3 technologies in workshops in which the partners and third parties participated. This integrated approach provides maximal synergies in between the 3 technologies.</p> <p>Application opportunities beyond the known use cases are explored. A scientific and cutting edge strategy for overcoming the market barriers ensuring rapid and maximum market uptake will be defined in 2017. A clear description of possible applications and potential benefits will serve as an excellent basis for the dissemination activities.</p> <p>i³-Food will extremely benefit from results of national, trans-national and European projects. S&T project partners of i³-Food have outstanding expertise in the field of PEF, high pressure and extrusion application as well as high competences in system and innovation research. Thus, the multidisciplinary endeavour will connect and amplify the EU strengths in advanced technologies research.</p> <p>The project started 1 April 2015. WFBR activities focus on industrial requirements for optimal process control of the selected processes, of which temperature control during high pressure high temperature processing is an important one. Together with the industrial partners, an inventory of the requirements for process control is made which serve as input to the activities of the other partners in the project. The requirements were leading in the sensor and HACCP protocol development performed by the partners in 2016.</p>

Aantal opgeleverde producten in 2016			
Wetenschappelijke artikelen	Rapporten	Artikelen in vakbladen	Inleidingen/ workshops/ invited lectures
-	- D3.1: Implementation guidelines describing the requirements for industrial application of process validation sensors, 2015 (*), RE	-	- H.M. Vollebregt and A.M. Matser, Hurdle technology to improve organoleptic aspects of broccoli in pressure assisted thermal sterilisation, 19th EFFoST Conference, Athens Greece, 2015 (*) - A.M. Matser, M. Nierop Groot, H. Mastwijk, R. Timmermans and H. Bokhorst van de Veen, Mild preservation, could it be better than heat pasteurisation?, FIMM conference, Wageningen The Netherlands, 2016 - A. Matser and M. Vollebregt, High pressure high temperature processing. Potential applications for preservation of food products, with special focus on tomato products, Fruit & Veg Processing, Avignon France, 2016 https://colloque.inra.fr/fruitsvegprocessing2016 - A.M. Matser, Longer fresh with mild preservation (in Dutch), Conference Changes in the chain, novel technologies and future of cooling, Wageningen The Netherlands, 2016

(*) Included for completeness, was not reported in 2015

RE: Restricted to a group specified by the consortium (including the Commission Services)

Kennis Online: <http://www.wur.nl/en/project/i3-Food-implementation-of-innovative-food-processing.htm>