



General information	
PPS number	AF-15235
Title	Tasty Sustainable Frozen Foods
Topsector and innovation theme	Topsector Agri & Food, High quality products and processing
Project manager (research)	Ariette Matser (Wageningen Food & Biobased Research), ariette.matser@wur.nl
PPS coordinator (on behalf of private partners)	Bjorn van den Oudenhoven, LambWeston
Contact person (government)	Cor Wever, Ministry of Economic Affairs, department ANK
Status (in progress or completed)	In progress
Type of research	Applied (industrial)
Start date	1 January 2016
End date	31 December 2019
Short description	The objective of the project is to understand the physical causes of the loss of product quality of frozen foods, with the aim to improve their quality at the point of consumption and to reduce energy consumption during storage and processing of frozen products.

Highlights
<p>Freezing is a frequently used method to extend shelf life, to avoid spoilage of food, and loss of value in the chain. It contributes greatly to the reduction of food waste. Energy consumption, quality, weight and aggregation during frozen storage have led to a worse image than food directly prepared from fresh products. The objective of the project is to improve the final quality of frozen products after processing by consumers and reduce energy consumption during storage and processing of frozen products.</p> <p>To freeze and realize improvements in frozen storage, it is essential to understand both the performance of the process and the changes in the product. To understand the physical causes of loss in product quality of frozen products, in this project companies and knowledge institute work towards the scientific understanding of moisture migration and crystal formation, understanding of impact of variations in storage conditions and create the bridge to apply this knowledge in practice.</p> <p>This insight will help businesses to deliver better quality frozen products as finished and semi-finished product. The industrial partners of the consortium will be the first to apply these insights to show it the added value. By neutralizing the negative aspects of frozen food, the opportunity arises to emphasize the positive aspects of frozen foods, such as better retention of nutrients such as vitamins and short preparation time (after thawing). More use of frozen products, the food industry flexibility in sourcing and prevents spoilage. Improved freezing and storage processes provide for reduction of energy consumption in this sector.</p>

Deliverables			
Scientific publications	Reports	Publications in professional journals	Presentations, workshops, invited lectures
-	-	1	2

Kennis Online: <http://www.wur.nl/nl/project/AF-15235-Duurzaam-ingevoeren-smaakvol-1.htm>