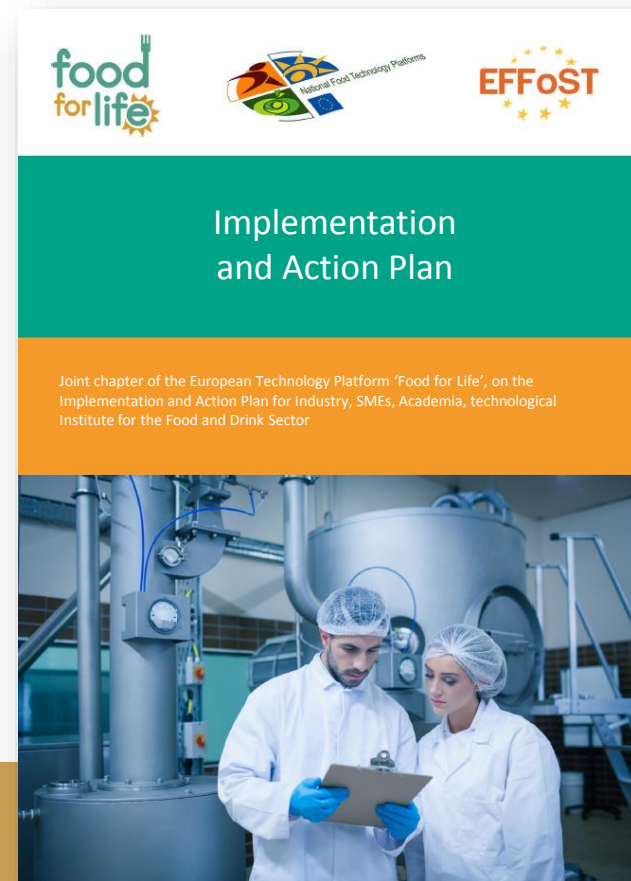
A photograph of a family of three—a man, a woman, and a young boy—shopping in a supermarket. The man is carrying the boy on his shoulders, and the woman is pushing a shopping cart filled with groceries. The background shows blurred supermarket aisles.

# European Technology Platform Food for Life

Remko.Boom@WUR.nl – ETP leadership team member



## Strategic Research and Innovation Agenda (SRIA)



Implementation and Action Plan (IAP) in preparation

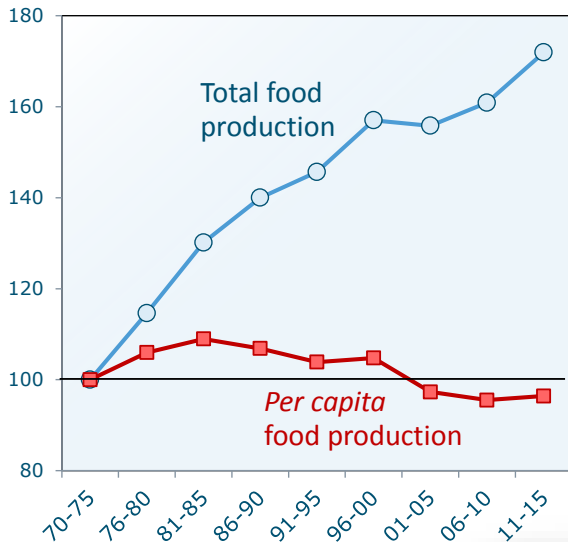
# Triple challenge



Balance in diet to combat non-communicable diseases

How can we win back the trust of the consumer?

- Health
- Consumer trust
- Sustainability



How can we keep up with increased demands?

## 9 Ways That Processed Foods Are Harming People

By Kris Gunnars, BSc

November, 2015 | 401,425 views

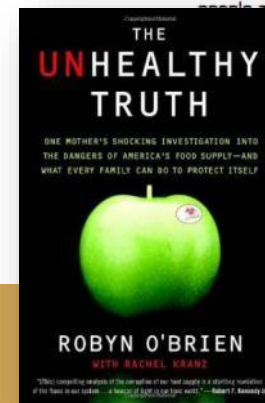
Processed foods are bad.

They are the main reason why people all over the world are getting fat and sick.

Do you know?

As a population adopts a diet high in processed foods, more people get sick.

It happens within a few years.



Mass Marketing

Personalization & Customization

Demand

Ecology Inside Us:  
Food-Gut Interaction

Forerunner Project:  
Eat Me: Prevention of NCDs

The Food I Love:  
Food Appreciation

## 1. Increasing the engagement & involvement of consumers

- Integrated food safety as a unique selling point
- Food structuring for better health
- Towards sustainable packaging systems
- Alternative food sources
- Next generation strategies for food safety assessment
- Less refined, more natural food ingredients

## 2. A more personalized and customized food supply

- Appreciation of diversity in food and eating
- Dietary approaches for the prevention of NCDs
- Intelligent, communicating packages
- Understanding food digestion
- Food meets gut microbiome
- Concepts and technologies to assure consumer health and wellbeing

## 3. A more flexible, dynamic and sustainable food system

- Improving insights into consumers
- Making food an activity
- New food production and delivery models to provide better access
- Consumer engagement in sustainability
- Modular food production and distribution

Supply

SMEs and Enterprises as Players

Consumers as Players

Classical

It's All Food  
Alternative  
Sources

Assessment

# Data Sciences in Food according to the Research Agenda

## Industry 4.0

- Production: forward control, flexibility in raw materials, mass customization, distributed production,
- Food safety and quality control: internet of food
- New chain models: distributed, consumer oriented, *smart food grid*
- New resources: mining for new (protein) sources
- Development: Plug 'n' Play environment for innovation

## Consumer 4.0

- Better understanding: interpretation of feedback by deep learning  
Sensory panels, consumer reactions in larger, less defined groups
- Better engagement: *citizen Science*  
Offering active access to information  
Engaging consumers in research and innovation  
Involving consumers in decisions on sustainability (e.g., packaging)

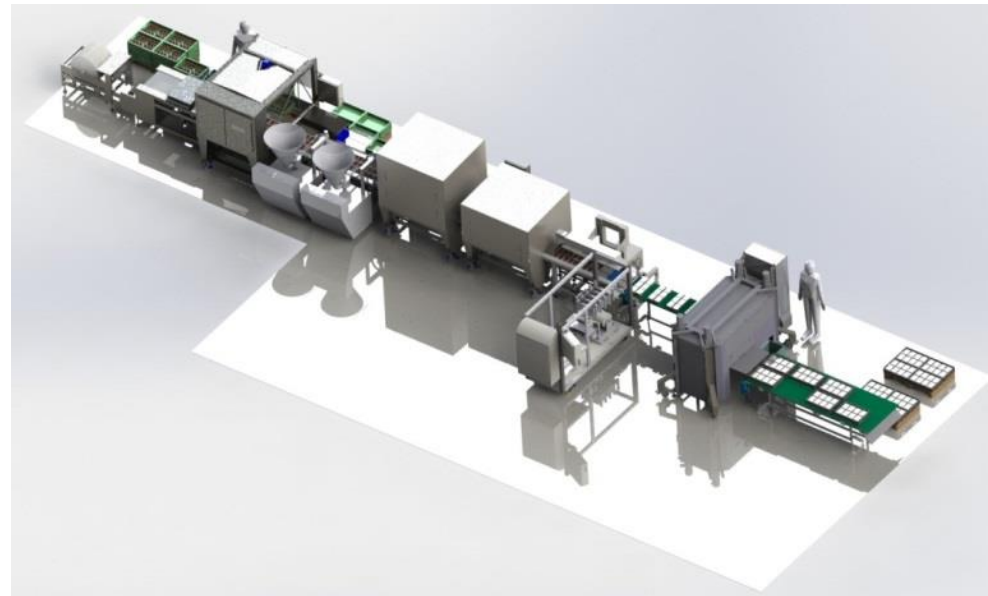
## Example: Pick-N-Pack consortium

Flexible robotic systems for automated adaptive packaging of food products

- Sensing module assesses quality of individual products packaging
- Vision controlled robotic handling module picks up, separates, places
- Adaptive packaging module

Wageningen University & Research  
Danish Technological Institute  
Tecnalia Research & Innovation  
Catholic University Leuven  
University of Manchester  
Fraunhofer AVV

Lacquey BV	ITENE
Spectroscan	Marel
Tecnalia-AZTI	Cam-Tech A/S
XaarJet AB	Marks & Spencer



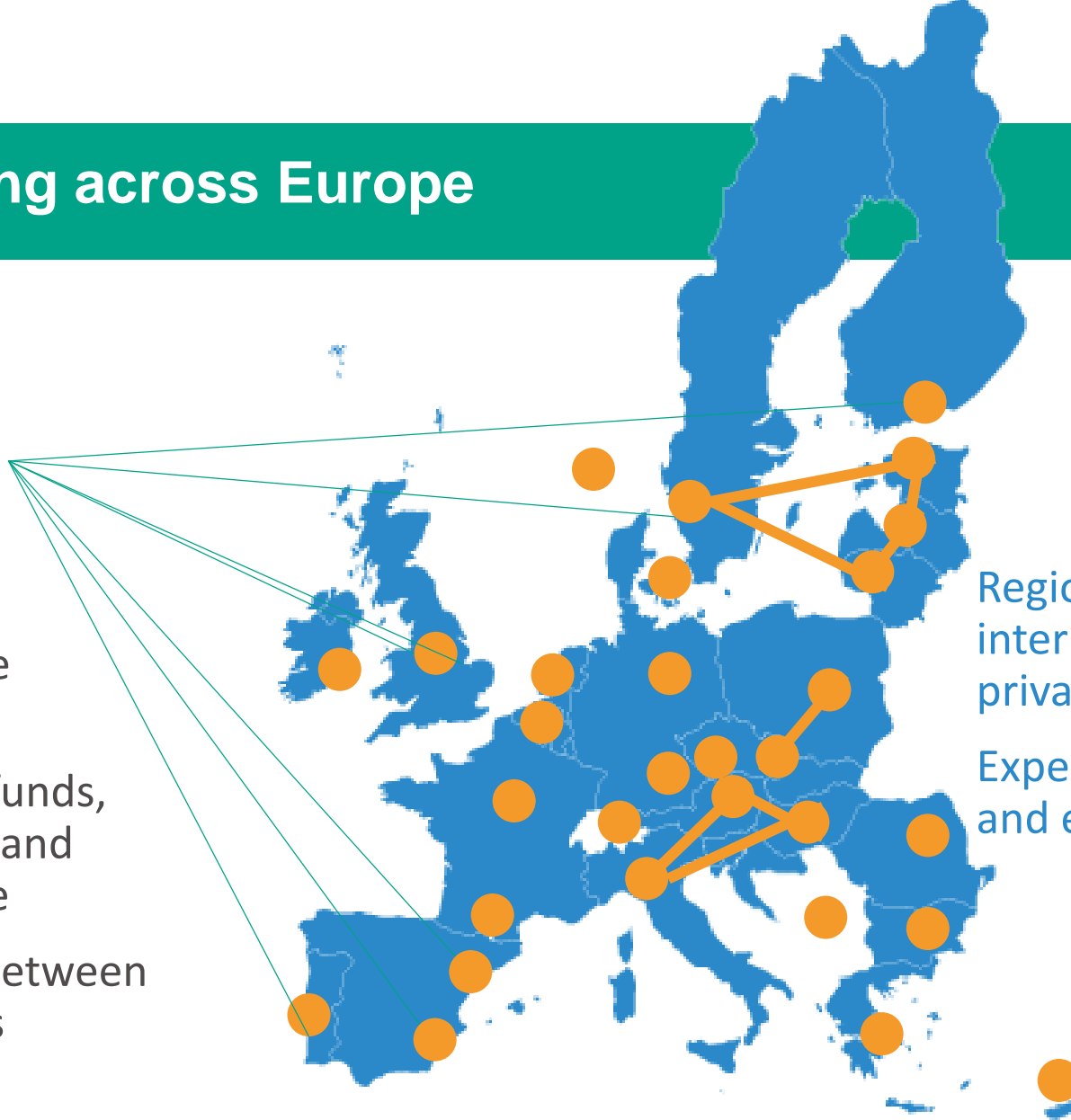
# Connecting across Europe



International public-private partnership

EU research funds, programmes and infrastructure

Connection between national PPPs



Regional/national/international public-private partnerships

Expertise, culture and economic needs

# Connecting across Europe



International  
public-private  
partnership

EU research  
programmes  
infrastructure

Connection  
between  
national PPPs

## ETP Food for Life

- EU wide public-private partnership aimed to create a common strategy for the European food sector

## Regional and national partnerships

- Create and innovate food sector 4.0
- Communicate needs and expectations to ETP F4L

## Together

- We will capitalize on Europe's collective expertise and diversity to expand Europe's leadership in food