

THE DIVISION OF AGRI-FOOD MARKETING & CHAIN MANAGEMENT

Prof. Xavier Gellynck, Prof. Hans De Steur

June 2023



CONTENT

- **Vision, Mission & Business definition**
 - Research
 - Education
 - Service
- **Topics & Projects**
 - Highlighted projects
- **Research team**



VISION, MISSION & BUSINESS DEFINITION

RESEARCH VISION

- A leading center for knowledge development and dissemination within the domain of agri-food marketing & chain management in Flanders/Belgium, the EU and beyond



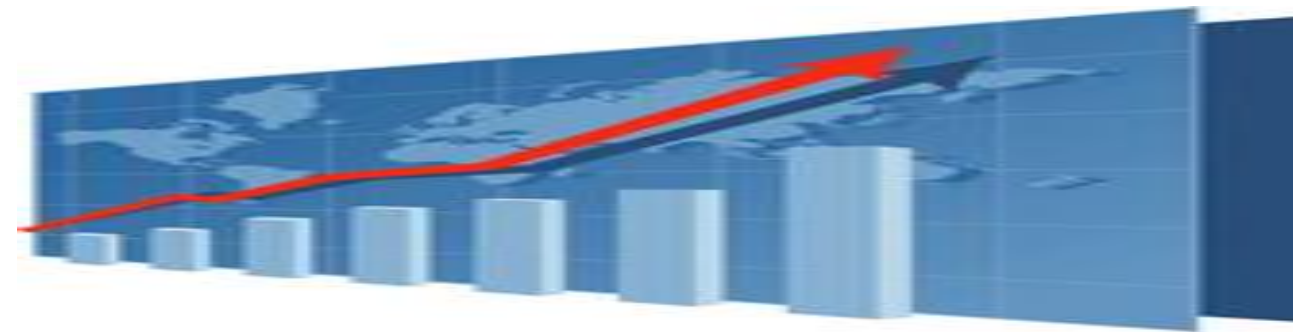
RESEARCH MISSION

– APPLIED RESEARCH & SCIENTIFIC TRAINING

- We want to facilitate access to scientific intelligence within the domain of agri-food marketing and chain & network management allowing our [\(post-\) doctoral researchers](#) to outperform in the course of their future professional career

– CONSULTANCY & BUSINESS TRAINING

- We want to provide market intelligence allowing the [business community/policy makers](#) to be more successful and to obtain a higher performance when facing the challenges in the agri-food sector



BUSINESS DEFINITION

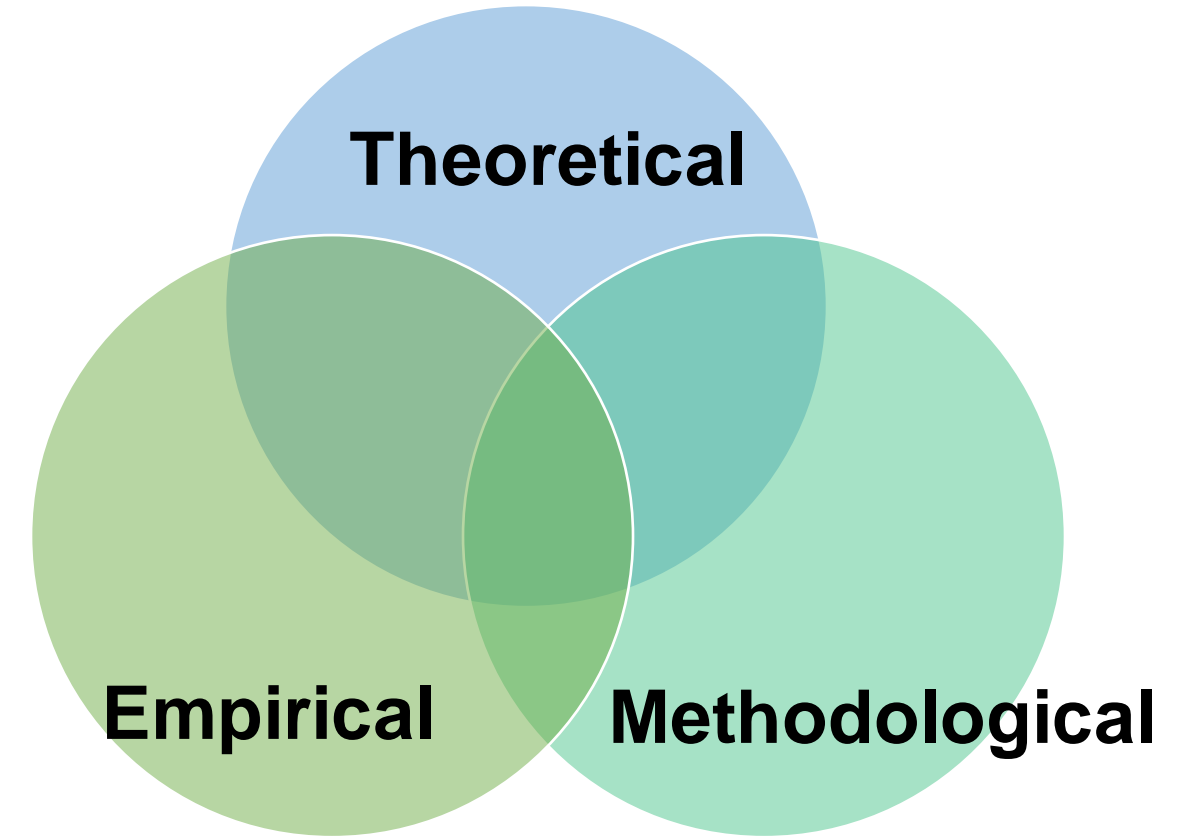
The Division Agri-Food Marketing & Chain Management

1. **applied** research
2. **scientific** intelligence in the domain of
 - marketing
 - chain and network management
 - sensory research
3. **training** for students & professionals
4. **dissemination** towards stakeholders: business, policy, scientists, students & the community
5. **capacity building** in resource-poor setting

RESEARCH

APPLIED RESEARCH

Agri-food systems approach



WHAT

Division of Agri-food Marketing & Chain Management



Prof Dr. Hans De Steur
Agri-food marketing
 Stakeholder behavior
 Socio-economic methods
 Experimental & synthesis methods



Prof. Dr. Xavier Gellynck
Chain management
 Network management
 Agribusiness management
 Waste & sust. management
 Sensory evaluation



Dr. Joachim Schouteten
Sensory evaluation
 Affective science
 Food design
 Business development

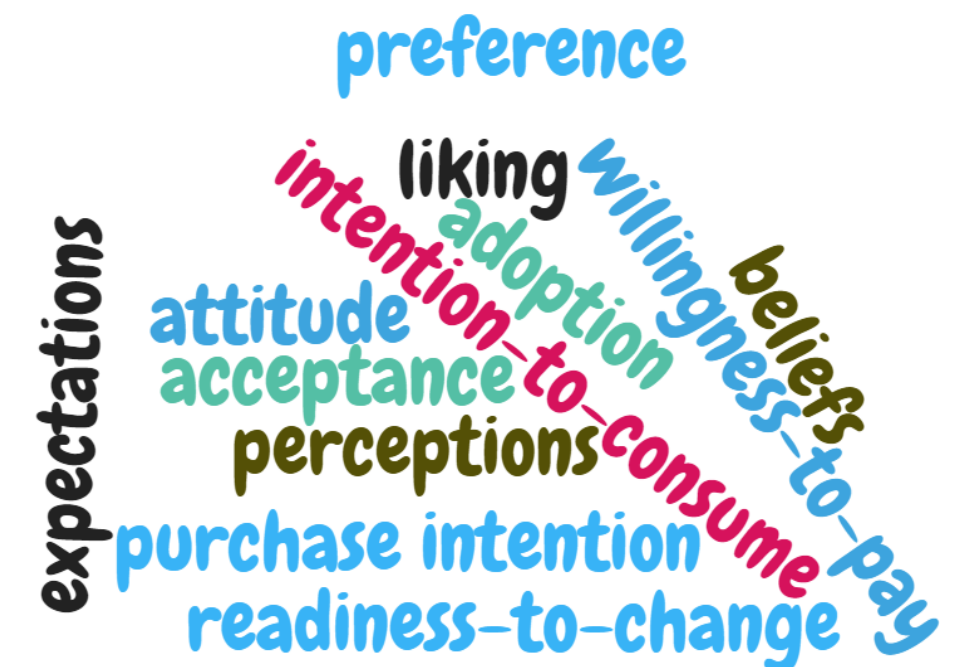
RESEARCH: THEORETICAL

- **Theoretical:**
 - Examine existing theories of
 - Behavioral science
 - Chain and network management
 - Define, operationalize and validate new constructs
 - Marketing (e.g. stakeholder evaluation)
 - Management (e.g. innovation capacity, performance measurement)

What Do We Know About Chain Actors' Evaluation of New Food Technologies? A Systematic Review of Consumer and Farmer Studies

Measuring chain performance beyond supplier-buyer relationships in agri-food chains

Enhancing Innovation Capacity Through Vertical, Horizontal, and Third-Party Networks for Traditional Foods



e.g. Stakeholder evaluation metrics

RESEARCH: METHODOLOGICAL

- **Methodological:**
 - Innovating and advancing methodological approaches
 - Chain management (e.g. network/chain as unit of analysis)
 - Behavioral economics (e.g. experimental auctions)
 - Sensory evaluation (e.g. VR, implicit methods)

ANNALS of THE NEW YORK
ACADEMY OF SCIENCES

Methods matter: a meta-regression on the determinants of willingness-to-pay studies on biofortified foods



Food Research International

journal homepage: www.elsevier.com/locate/foodres

Comparison of response formats and concurrent hedonic measures for optimal use of the EmoSensory® Wheel

Cognitive biases and design effects in experimental auctions
An application to GM rice with health benefits



Food Quality and Preference

journal homepage: www.elsevier.com/locate/foodqual

Heart rate, electrodermal responses and frontal alpha asymmetry to accepted and non-accepted solutions and drinks

RESEARCH: EMPIRICAL

– Empirical:

- Understanding driving forces underlying the socio-economics of the agribusiness sector
- Evaluating the market potential of innovations in agri-food

Level of analysis

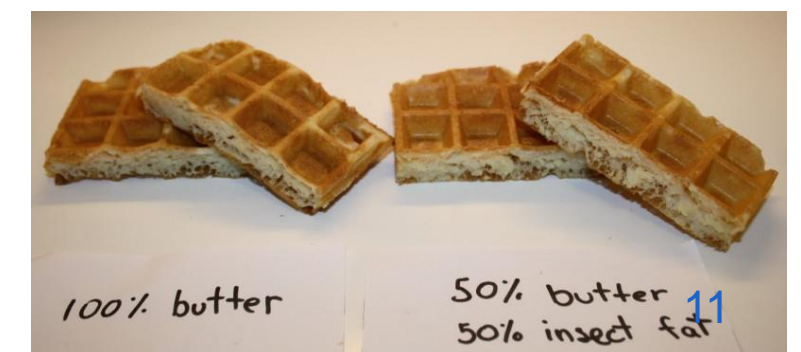
- *Ex-ante/ex-post*
- *Farm → fork*

Scope of research

- *EU and beyond*
- *Developing world*



Insect-based fat in your Belgian waffles soon?



RESEARCH SHOWS GM CROPS WITH HEALTH BENEFITS HAVE LARGE MARKET POTENTIAL

Genetically modified crops with increased vitamin and/or mineral content have the potential to improve public health, but their availability for consumers is still hampered. Research from Ghent University, recently published in *Nature Biotechnology*, has shown that these crops have a promising market potential.



HORIZON
The EU Research & Innovation Magazine

HOME | VIEWS | TOPICS | VIDEOS

AGRICULTURE INTERVIEW

Secret to cheaper food may be to copy Toyota

PUBLICATIONS

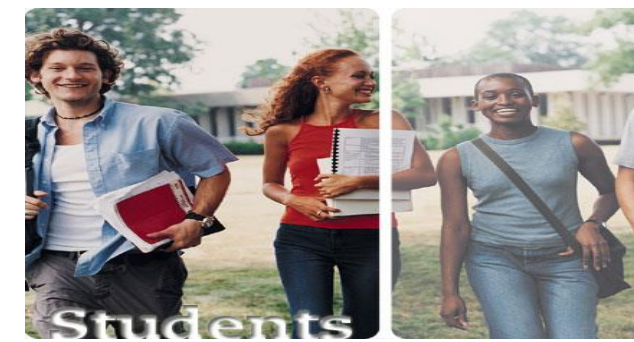
- **Output: ~ 15 WoS publications/year**
- **Domains:**
 - Agriculture and Food Sciences, but also in Social sciences, Business and Economics, Biology and Life Sciences, Medicine and Health Sciences, ...
- **Major journals (high impact) in various domains, e.g.**
 - *Trends in Food Science & Technology, Nature Communications/Biotechnology, Agribusiness, Food Quality and Preference, Food Research International, Journal of Sensory Studies, Journal of Cleaner Production, ...*

EDUCATION

EDUCATION & TRAINING

– **Training offer to students:**

- Faculty of Bioscience Engineering (3 campuses), Ghent University
- Faculty of Economics and Business administration, Ghent University
- Ghent University Global campus (GUGC; South Korea)



<u>Economics & marketing</u>	<u>Entrepreneurship & management</u>	<u>Sensory analysis</u>
Introduction to economics	Advanced Marketing and Agribusiness Management	Sensory analysis
Agricultural and Food economics	Entrepreneurship and business management	Rheology and Sensory analysis
Consumer behavior and marketing of bio-industrial products	Management of agri-food businesses	
Applied Rural Economic Research Methods	Project Design in Agri-food Systems	
Economics and marketing (GCC)	Project Management, Entrepreneurship and Intellectual Property (GCC)	
	Plunge into your own Business plan (Summer School)	

– **Guest lectures** (e.g. Faculty of Sciences, Medicine & Health; Copenhagen Uni, Brunel Uni, ...)

– **Training to professionals:**

- Ad hoc courses on management (chain management, strategic management, lean management), marketing (research methods, food marketing), business plan & sensory analysis

SERVICE

CAPACITY BUILDING

PHD fellowships – candidates from developing countries

Flemish gov (UGent BOF)

Sandwich PhD students

VLIR UOS

IUC – Uganda

Team – Uganda, Kenya, Morocco

SI – Ecuador, Uganda, Philippines

H2020

Smart Protein – EU

Cropdiva – EU

WeLASER – EU

FAIRCHAIN - EU

Mobility

H2020

FoodMAPP

**RESEARCH &
DEVELOPMENT**



Education

Erasmus+

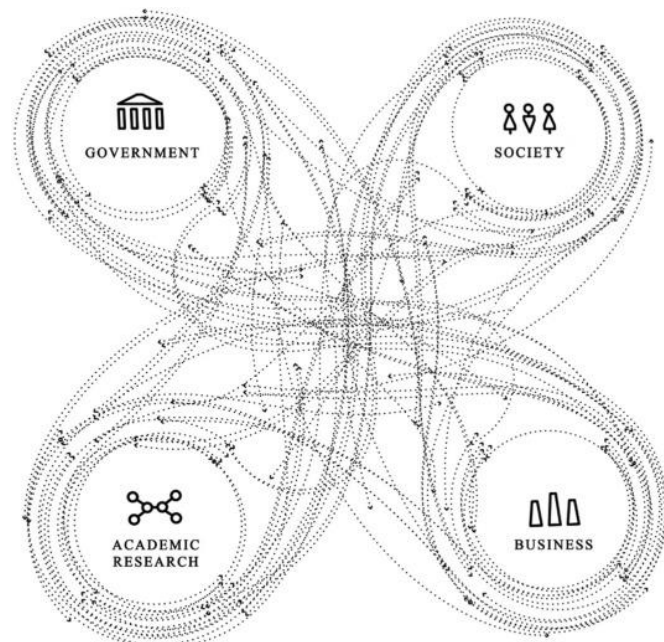
NutriSEA - Myanmar,
Cambodia, Vietnam, EU
e-Tomato - EU

Community knowledge & skills development

Developing & developed countries

OUTREACH

- The dissemination activities are directed to:
 - The business community through the collection of market information and consultancy
 - Governmental institutions to whom we advise about the socio-economic impact/market potential of policy related measures
 - The general public by contributing to societal discussions
 - The students through the integration in course material
 - The scientific community through academic outreach



SENSOLAB

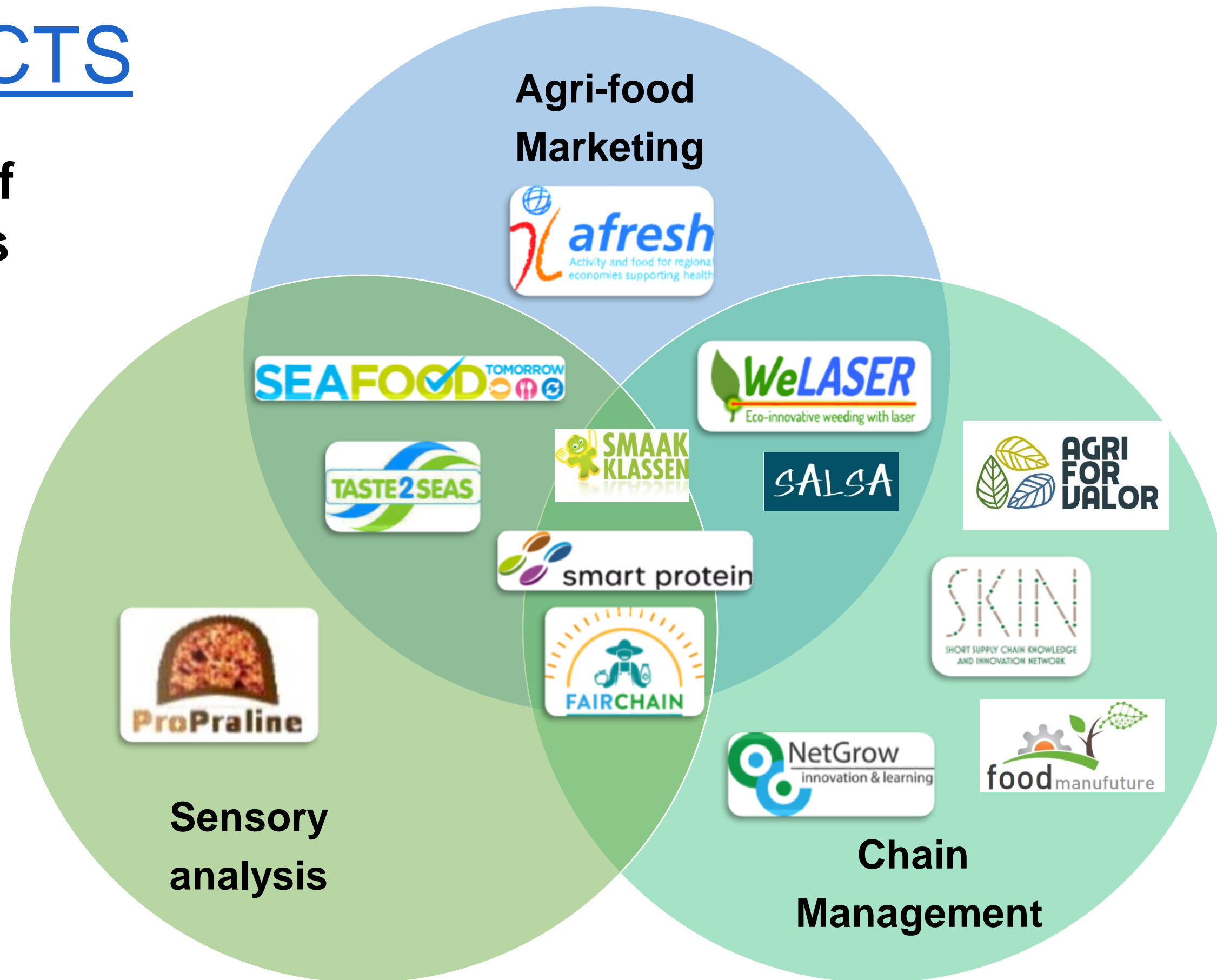
- Sensory facilities at Campus Coupure,
 - incl. 7 booths & separate preparation room
- Used for education, research and services
- Training regarding sensory evaluation & consultancy to solve sensory problems and challenges
- Contact: dr. Joachim Schouteten (Joachim.Schouteten@UGent.be)



TOPICS & PROJECTS

PROJECTS

Selection of EU projects



PROJECTS

DEPARTEMENT LANDBOUW & VISSERIJ

- De andere kip
- De impact van cosmetische kwaliteitseisen op voedselverlies
- PDPO - Smaakbeleving als hefboom voor marktinnovatie
- PDPO - Crowdsourcing en innovatie voor kmo's en detailhandel



- Finesweet
- Trends



- Het Menapisch varken
- PulseBake



- Food safety perceptions and practices in Ethiopia
- Biofortification value chain analysis



- IUC – Uganda
- Team – Uganda, Kenya, Morocco
- SI – Uganda (post-harvest losses), Philippines (cocoa), Ecuador (cocoa)



- Fevia
- Valorfit
- Compass group
- ...

PHD-RELATED PROJECTS, e.g.

Prof. Hans De Steur

Leveraging smallholder agriculture through integration of **mobile phone technology** and applications in Uganda

Evaluating current and future GM crops in Bangladesh: the case of **Bt brinjal and Golden Rice**

Estimating the **value of healthier rice** varieties in the Philippines

Socio-economic analysis as a tool to validate **smart agriculture technologies**

Development & Evaluation of **Insect-based Complementary Foods** for Children in Kenya

The role of social media in acceptance of **alternative protein sources** and products

Stakeholder evaluation of **alternative protein chains**

Prof. Xavier Gellynck

Evaluation of **lean management** in agriculture

Management of **innovation and alliances** through agro-food clusters

Analysis of **food SME failures** in Tanzania

Towards increasing **agricultural productivity**: A case of dairy farming

Examining **short food supply chains'** intra-firm resilience in Ecuador

Measuring **transparency** in the food sector

Mapping & Utilizing the Potential of **Philippine Cacao**

Supply chain analysis of **block chain technology**

Business model development of technological innovations in dairy, fruit and vegetables

HIGHLIGHTED PROJECTS

SMARTPROTEIN



Smart Protein for a Changing World.

Future-proof alternative terrestrial protein sources for human nutrition encouraging environment regeneration, processing feasibility and consumer trust & acceptance

smartproteinproject.eu

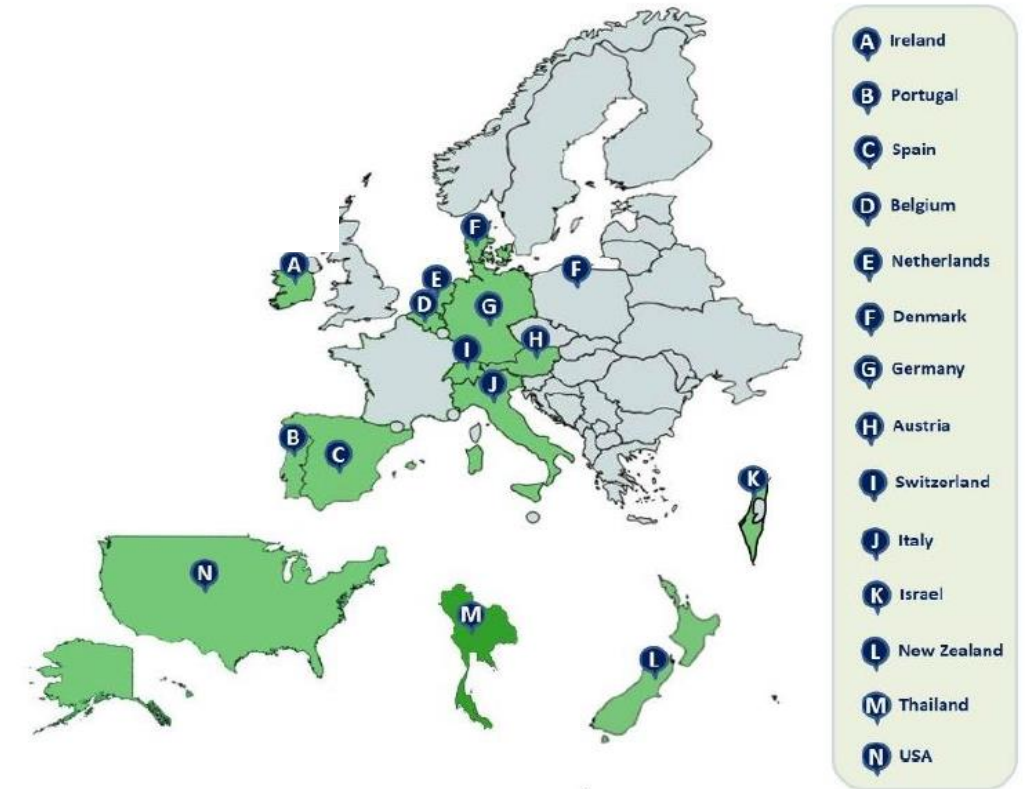
One of the most **innovative** plant-based projects

A collaboration of **33 partners** from more than **20 countries**



4 years in length (2020- 2024)

A **EU-funded research project** (Horizon 2020) with a €9+ million budget



Byproducts from pasta, bread, beer



Chickpeas, lentils, quinoa, fava beans

⇒ **Next generation of smart protein foods**



smart protein

smartproteinproject.eu

Plant-based foods
From Farm to Fork

Life-cycle costing (LCC): holistic assessment (LCA-LCC), incl. hotspot analysis

Stakeholder analysis:

- sustainability perceptions
- intention-to adopt/shift to PB



Expert evaluation: In-depth analysis of successful cases; benchmarking success factors

Sensory evaluation: Acceptance, hedonic liking, behavioral intervention

RESEARCH TEAM

RESEARCH TEAM



RESEARCH TEAM

	PhD student	First contact point	Main ZAP-promotor	tbc
professors	XAVIER GELLYNCK	XG		
	HANS DE STEUR	HDS		
postdocs	JOACHIM	JS		
	JOSHUA	JW		
	MARCIA	MB		
AB mngm	Joel (BOF)	JS & HDS	XG	tbd
	Nataly	XG	XG	tbd
	Heidi (AAP)	HDS	XG	2023
	Elizabeth	JW	XG	2023
	Pulkeria (VLIR)	MB	XG	2023
	Tigist (NASCERE)	MB	XG	2025
	Monika	MB	XG	2025
	Brian (GStic)	JW	XG	2027
AF marketing	Maryam (VLIR)	JS/HDS (& Prof Raes)	HDS	+senso 2022
	Dilshad (BOF)	HDS (& Alam)	HDS	2023
	Nathaline (BOF)	HDS	HDS	2024
	Claire (BOF)	HDS (& Matty)	HDS	2024
	Diana (IITA)	JW & HDS	HDS	2024
	Yixuan (CSC)	MB	HDS	2025
	Lidya (BOF)	MB	HDS	2025
	Susie (BOF)	MB	HDS	2027
	Hui Lin (CSC)	MB	HDS	2026
	Elisabeth	HDS	HDS	2027
Desiana	JS	XG	2027	
EU-cluster	Margo (EU)	HDS	HDS	2024
	Listia (EU)	JS	HDS	+senso 2024
	Esther (EU)	JS	XG	+senso 2024
	Duc (EU)	JS	XG	2024
	Simoun (EU)	JS	XG	2026



ALUMNI

– Where some of our former colleagues ended up ...



Pieter Verhelst · 1st
Member of the Board at Boerenbond
Bruges Metropolitan Area · [Contact info](#)



Dr Manoj Dora · 1st
Director, Collaborative Project & Outreach | Head, Operation & Information Management Group | Founder Circular Food Forum
Greater Cambridge Area · [Contact info](#)



Virginie Lefebvre · 1st
Strategic Advisor to the CEO at LIST
Luxembourg · [Contact info](#)



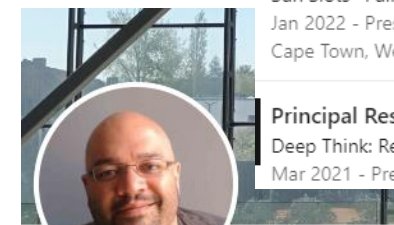
Bianka Kühne · 1st
Central research coordinator at HOWEST applied university (Hogeschool West-Vlaanderen)
Kortrijk, Flemish Region, Belgium · [Contact info](#)



Solomon Olum · 2nd
Doctor (PhD) of Food Sciences and Nutrition; Department Chair of Food science and Postharvest Tech; Food Product dev't & analysis; Food and Nutrition security assessment; stakeholder analysis..
Uganda · [Contact info](#)



Joshua Wesana, PhD · 1st
Senior Fellow in Fish and Food Systems (Nutritional Outcomes) at Natural Resources Institute
United Kingdom · [Contact info](#)



Darian Pearce · 1st
Intelligence / Sustainability / Excellence

Senior Business Analyst
Sun Slots · Full-time
Jan 2022 - Present · 1 yr 1 mo
Cape Town, Western Cape, South Africa

Principal Researcher & Founder
Deep Think: Research and Management · Full-time
Mar 2021 - Present · 1 yr 11 mos



Richel Lamadrid · 1st
Professor at Saint Louis University School of Accountancy & Business Management
Philippines · [Contact info](#)



Carl Cochez · 1st
Purchasing Manager Traded Goods bij Vandemoortele
Aalter, Flemish Region, Belgium · [Contact info](#)



Mulugeta Damie Watabaji · 1st
Project Manager, African Center of Excellence (ACE) for Climate Smart Agriculture and Biodiversity Conservation
Ethiopia · [Contact info](#)



Hendrik Stouten · 1st
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Arnhem-Nijmegen Region · [Contact info](#)



Evelien Lambrecht · 1st
Business Developer bij Inagro vzw
Bruges Metropolitan Area · [Contact info](#)

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<https://agecon.ugent.be/agri-food-marketing-and-chain-management/>

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