

CATALYSE

Catalysing scientific innovation into food safety action

An introduction to the CATALYSE project

Helena Stoffers Ghazal Nemati



Co-funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Research Executive Agency (REA). Neither the European Union nor the granting authority can be held responsible for them. Project number 101136754.

Project funded by



Schweizerische Eidgenossenschaft Confédération suisse Confederazione Svizzera Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs, Education and Research EAER State Secretariat for Education, Research and Innovation SERI



This project has received funding from UK Research and Innovation (UKRI)

Presentation outline

- 1. Introduction on food safety
- 2. Description of the approach
- 3. Expected results
- 4. Results of WP2
- 5. Connect with the Catalyse partners







Introduction on food safety

- Food safety is a critical aspect of the food sector, as it is essential to ensure that the food we consume is free from harmful contaminants.
- According to the WHO, contaminated food causes 600M cases of foodborne diseases and 420k deaths every year, resulting in 33M years of healthy lives lost, and this is possibly an underestimation.
- A 2019 World Bank report states US\$110B is lost each year in productivity and medical costs due to unsafe food in low- and middle-income countries.
- Also, contaminated product recalls affect profits and create food waste.







Introduction on food safety

- Research in recent years has driven immense advances, but barriers exist that can impede knowledge sharing among food system actors, hindering innovation in food safety.
- Overcoming these barriers requires a concerted and interdisciplinary effort involving industry, regulators and researchers to discuss and identify food safety priorities and how these can be translated into applying innovative solutions.
- This can strengthen the resilience of food companies by implementing alternative strategies to maintain and/or increase quality and productivity.







Presentation outline



- 1. Introduction on food safety
- 2. Description of the approach
- 3. Expected results
- 4. Connect with the Catalyse partners





Ambition of CATALYSE

CATALYSE

Catalysing scientific innovation into food safety action

- The ambition of CATALYSE is to accelerate the uptake of knowledge and innovative solutions that promote food safety by end users.
- To achieve this, CATALYSE is determined to encourage end-users, such as food authorities and food processors to prioritise and support innovation in the food system.
- To support start-ups and SMEs with promising innovations in food safety - testing methods, testing technologies, solutions to improve food safety.





OUR AMBITION

Our ambition is to accelerate and make more efficient the uptake of knowledge and innovative solutions that promote food safety by the food system actors. We seek to bridge the gap between the silos of innovators, practitioners, regulators and end-users.

DATABASE DESIGN

We are establishing a database to collect, translate and disseminate knowledge and practices to relevant food system actors, increasing awareness and understanding of the "Farm to Fork" innovations.

INFORM AND EDUCATE

We will develop educational materials and offer training to practitioners and endusers on the latest best practices in food safety, including reaching out to traditional food sectors.

ESTABLISH A KNOWLEDGE-SHARING NETWORK

We are setting up a Community of Practice (CoP) to foster collaborations between food system actors to accelerate the adoption and scaling-up of innovative practices and technologies. This CoP will match problems and need for support with innovation and breakthrough ideas.

SUPPORT NETWORK

We will provide a platform for startups, SMEs, and traditional producers with promising innovations in food safety to expand and showcase their work.

INNOVATION EVALUATION

We will assess the impact of innovation on the food system to identify areas for further development.

OUR METHODOLOGY

Our working model - "Collect – Translate – Facilitate – Educate" will help improve food safety across Europe, by effectively translating research and innovation into practice, bringing together the Farm to Fork value chain actors to ensure fair, healthy and environmentally friendly food systems.

COLLECT

Compile past, ongoing, and future food-safety related projects and identify food chain limitations and expectations to anticipate suitable implementation.

TRANSLATE

Bridge the gap between theoretical knowledge and practical policy by translating innovative solutions into pragmatic, applied solutions.

FACILITATE

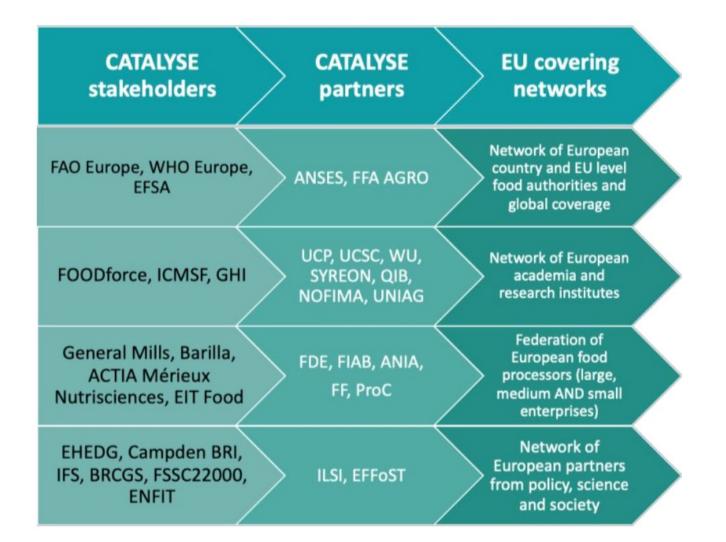
Establish a unified networking platform for stakeholders to share information and follow up on innovations and their implementation progress.

EDUCATE

Raise critical issues within the food chain to technical audiences and simplify scientific concepts to non-scientific audiences.



The CATALYSE approach





Catalyse will have Europeanwide coverage over the four main stakeholder categories:

- Authorities,
- Academia,
- Industry,
- Society.



Engagement Stakeholder: Areas where Stakeholders have recently observed innovations

or solutions that address critical needs and need to be adopted more frequently/by more stakeholders



Food Safety feed Welcome **Innovations in** Educational Resources Chapters **Events About CoP** (CoP) **Food Safety** (repository) News Regular updates and highlights on food safety innovations, events, and community news. Loop of monthly news/updates Blog for experts BLOG **Opinion articles on Food Safety** Interviews Posts of Stakeholders Sharing space (announcements, webinars, job opportunities) Collaborative space (ongoing projects, partnerships opportunities, collabs for research) Feedback section

Satisfaction survey

Improvement area (suggestions)

Suggestion of new topics/resources/chapters

Presentation outline



- 1. Introduction on food safety
- 2. Description of the approach
- 3. Expected results
- 4. Connect with the Catalyse partners





Expected results

CATALYSE

Catalysing scientific innovation into food safety action

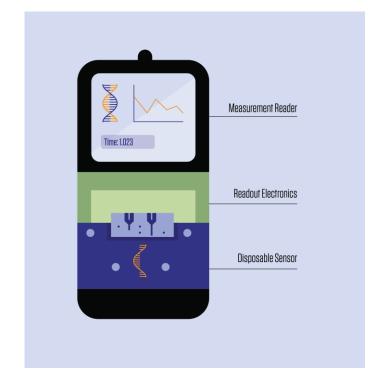
- 1. Prioritised list with needs from end-users,
- 2. List of high potential innovations,
- 3. Searchable knowledge database,
- 4. Vivid Community of Practice,
- 5. High quality education program,
- 6. Better connections between end-users and innovators,
- 7. Improved uptake of new innovations in food safety.



Analytical methods:

- 1. More accurate analytical methods,
- 2. More efficient analytical methods,
- 3. Portable analytical methods,
- 4. Rapid testing methods.









Alternative sterilisation methods:

- 1. Mild processing methods,
- 2. Combinations with sonication (eg. Sonosteam),
- 3. Use of UV light (eg. LYRAS),
- 4. Super chilling,





Digital technology applications:

- 1. Bioinformatics of sequences,
- 2. Visual quality inspections powered by AI,
- 3. Robotics: safer hygiene inspections,
- 4. Real time temperature loggers,
- 5. Predict Risks in Your Supply Chain with Al,









Shelf life extension:

- 1. Bio2Coat Natural Preservation Technology,
- 2. Saveggy plant-based edible coatings,
- 3. Mimica: Temp-sensitive freshness indicator,
- 4. Keep-it: shelf-life indicator for food,





Connect with CATALYSE



- 1. Introduction on food safety
- 2. Description of the approach
- 3. Expected results
- 4. Connect with the Catalyse partners



CATALYSE on social media:





CATALYSE Project EU

CATALYSE is an EU project dedicated to fostering knowledge and innovative solutions on food safety along the value chain

Non-profit Organizations · Wageningen · 223 followers · 11-50 employees



Anna & 12 other connections follow this page



To do: Go to Twitter and LinkedIn right now and start following us!

Home About Posts Jobs People



@CATALYSE Project EU



Connect with CATALYSE







www.thecatalyseproject.eu



@CATALYSE Project EU





Co-funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Research Executive Agency (REA). Neither the European Union nor the granting authority can be held responsible for them. Project number 101136754.

Project funded by



Schweizerische Eidgenossenschaft Confédération suisse Confederazione Svizzera Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs, Education and Research EAER State Secretariat for Education, Research and Innovation SERI



This project has received funding from UK Research and Innovation (UKRI)