

## PARTNERS



## PROJECT DETAILS

**PROJECT TITLE:** photonic system for Adaptable muLtipLe-analyte Monitoring of fOod quality

**ACRONYM:** h-ALO

**START DATE:** 01/01/2021

**DURATION:** 36 Months

**TOPIC:** ICT-37-2020 | Advancing photonics technologies and application driven photonics components and the innovation ecosystem

**EU CONTRIBUTION:** 4,239,432 Euro

## CONTACTS

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### DISSEMINATION MANAGER

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**h-alo.eu**



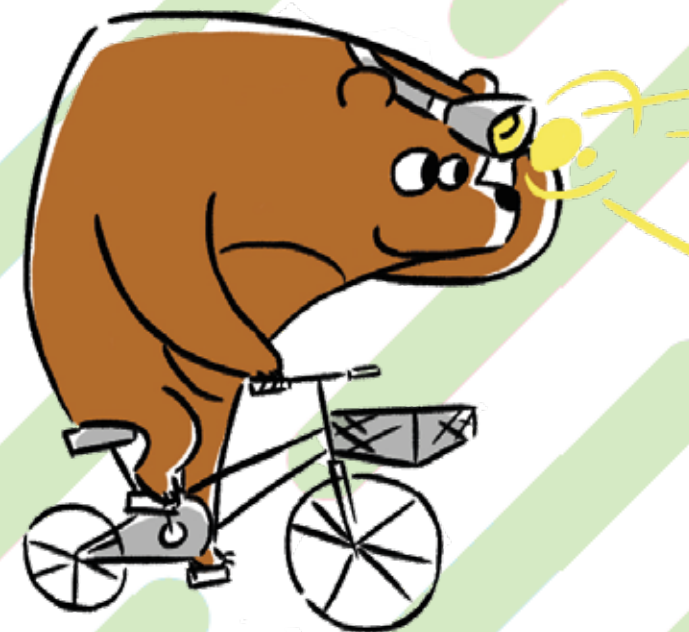
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**h-ALO**

**photonic system for Adaptable  
muLtipLe-analyte Monitoring  
of fOod quality**



**h-ALO SENSOR:  
HOW IT WORKS**

## THE PROJECT

The EU-funded research and innovation project h-ALO aims to develop a cutting-edge **bio-chemical photonic-based sensor** enabling the on-site early detection of microbiological and chemical contaminants **in the farm-to-fork local food chains**.

The h-ALO sensor will detect selected micro-organisms, pesticides/antiparasitics and heavy metals which are relevant for selected farm-to-fork food chains such as aquaponics, organic honey, craft-beer, and raw milk.

## h-ALO SENSOR

The h-ALO sensor is a tool to bridge the gap between local food production chains and food safety/quality monitoring.

### Integrative sensor system:

- a disposable cartirdge including a **microsieve membrane for analyte pre-selection**, concentration and treatment;
- a reusable cartridge for the **multimodal photonic detection** through reusable **nanoplasmonic biofunctionalized sensing surface**;
- a static part devoted to electronics, readout and containing the data-management unit.

### AQUAPONICS



### ORGANIC HONEY



### RAW MILK



### CRAFT BEER



## THE h-ALO SENSOR: HOW IT WORKS

