

## Widening Country Inspiration Story

“Include SMEs and focus on practical application.”

**Organisation names:** POWERTEC s.r.o. (Slovakia), SME – coordinator  
 Comenius University Bratislava (Slovakia), Higher education organisation  
 Research Centre for Natural Sciences (Hungary), Public research organisation  
 Hungarian Dairy Research Institute (Hungary), SME  
**Project Acronym:** SAFEMILK  
**Project start and end date:** 1.05.2021 – 30.04.2025  
**Type of MSCA, Horizon 2020:** Research and Innovation Staff Exchange



### What is your project about and why is the topic important for science advancement?

The SAFEMILK project's goal is the development of a novel complex assay for evaluation of milk safety – an important tool for the dairy industry, guaranteeing sufficient safety and quality of milk and dairy products. The complex biosensing assay is focused on the development of methods for rapid and sensitive detection of bacterial pathogens and antibiotics that can occur in milk and create a potential hazard for health.

The outputs of the project are the novel analytical assays applicable in dairy farms and analytical laboratories, staff exchange between academic institutions and SMEs, training of the students in novel analytical methods and sensor development in the top laboratories globally. The optimised complex assay for efficient control of milk safety is an important result of the project which could be commercialised by the participants from the industry. The organisation of training schools, workshops and transfer of novel technology will be among the priorities of this project.

### Why is your project important for society?

The control of food quality, along with security are two of the main priorities of the European Union. In the consumer food basket milk plays a significant role and the control of its safety is very important, especially considering the large number of small and medium size farms on the market. Quality control for hazardous species in dairy industry involves a large number of samples. The cost of this analysis is substantial. This project aims at developing innovative methods for complex assay of food safety, focusing especially on rapid, sensitive and easy to use methods for detecting pathogenic bacteria and antibiotics in milk and dairy products.

Milk is one of the most consumed foods in the world. It is composed of a mixture of proteins, vitamins, fats, carbohydrates, minerals and additional compounds (either contaminants or additives). The testing of raw milk is crucial for monitoring its suitability for human consumption either as milk or related products (yogurt, cheese, etc). Contaminants in milk can include bacteria, antibiotics, toxins such as

aflatoxin M1, or other chemicals e.g. pesticides. In this project we focus on the development of a complex system for detection of bacteria and antibiotics in milk.



### What kind of support did you get?

The consortium has previous experience from the successful MSCA RISE project FORMILK – implemented in the period 2016-2019. This experience has been quite helpful in preparing the current SAFEMILK proposal and adding new partners from Greece to the consortium.

NCPs organised regular Info Days with information on new calls.

**Do you have other successful projects under Horizon 2020?** Yes – [MSCA RISE FORMILK project](#).

**What in your experience helped you to succeed?** Our experience from the previous successful projects of the European Regional Funds (ERDF) financed Cross-Border Co-operation Programme ([MILKSENS](#)) and FORMILK significantly contributed to our current success, as did the experience from collaborations with European partners (Slovakia, Hungary,

Greece) and overseas partners, especially from the USA and Canada.

### What tips can you give other organisations that would like to apply for MSCA?

- ✓ To do projects where the result is the solution or improvement of an existing issue concerning the general public.
- ✓ Have a good estimate of what is feasible.
- ✓ Have good relations with European and non-European partners.
- ✓ Include SMEs and focus on practical application.

More information on the project:



The Marie Skłodowska-Curie Actions (MSCA) support researchers at all stage of their career across all disciplines. The MSCA also support cooperation between industry and academia and provide innovative trainings and career developments.

The MSCA Research and Innovation Staff Exchange (RISE) promotes international and cross-sector collaboration through exchanging research and innovation staff, and sharing knowledge and ideas from research to market (and vice-versa).

The MSCA-NET project is the MSCA NCP project to facilitate the transnational cooperation to achieve a consistent and harmonised level of NCP support. The scientific community can also profit from our project to support their MSCA application.

