**Project title:** From Toxicity to Safety

## Coordinator

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## **Partners**

Tshwane University of Technology

Harare Institute of Technology

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The project entitled "From Toxicity to Safety" or ToxiSA is a unique collaborative project between 4 established HEIs from Africa and Finland. The coordinating university is University of Eastern Finland (UEF), the partner HEI from Finland is University of Helsinki (UH), southern African partner HEIs are Tshwane Institute of Technology (TUT) from South Africa and Harare Institute of Technology (HIT) from Zimbabwe. ToxiSA plans to enhance education and awareness on mechanistic, descriptive, and regulatory toxicology, focusing on specific groups of chemicals in food, environment, and pharmaceuticals. The aim of the project is to address the current educational need globally and particularly in the southern African countries related to improper production, use &/or disposal of chemicals leading to environmental and human health hazards.

Within ToxiSA project, a course will be developed with both online and onsite laboratory parts. In the online part, each partner HEIs will bring their expertise in delivering lectures on a variety of relevant topics focusing on contemporary knowledge and practices. It will also include problem-based group works, case studies, and virtual laboratory assignments. The onsite part will include student and staff mobility for 7 days between Finland and the African partner HEIs. In Finland, UEF will host students and staffs from TUT, HIT and UH. While in South Africa, TUT will host the students and staffs from UEF, UH and HIT. The lab work for the students will include different toxicological assays and writing associated reports. The staff mobility will strengthen pedagogical skills among other aspects. The online part is planned during Feb-Mar 2025. The onsite part at UEF is planned during Apr-May 2025 and at TUT during Sep-Oct 2025.

The anticipated outcome of this project includes co-creation and co-implementation of a hybrid course in contemporary toxicology within the ToxiSA project. The project plans to enhance education and awareness of toxicology through the delivery of the course and through the dissemination of the project results via different channels that can reach to a variety of stakeholders (e.g., academia, industry, public) in the respective countries of the partnering HEIs. The project enables development of new research and educational collaborations between the Finnish and the southern African HEIs and strengthening of existing collaborations. The international exposure obtained through mobility, can expand the participating students' and staffs' understanding of different culture and systems. They will gain appreciation of the universality of research and education. The project will provide a platform for interchange of ideas and experiences, providing ample opportunities for capacity building. The project will further open the dialogue between the southern African and Finnish HEIs regarding research and education. Overall, the project hopes to contribute to developing a safe and sustainable future.

