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Problems of food security: environmental protection and energy savings

Conversation of Dr Anna Bałamut with research supervisors: Dr Luis Guerrero Asorey (Spain) and Dr Oxana Lazo (Mexico), participants of the COMFOCUS program (Spain, March 2024)

Information about the program (March 2021 – February 2025)

“This COMFOCUS program provides a unique platform for early career researchers to expand their understanding of consumer science, access shared and linked consumer data, and collaborate with experienced experts in the field.

The COMFOCUS Open Call 1 invites proposals for studies in the field of food consumer science with a connection to healthy eating. These studies can relate to consumer behaviour in relation to healthy food choices.

COMFOCUS Open Call #2 is an opportunity to visit a consumer science institute in Europe and conduct research using innovative psycho-physiological

approaches, such as eye-tracking, skin conductance, and make use of state-of-the-art virtual reality equipment¹.”

COMFOCUS offered 67 positions for early career researchers to conduct research in one of the participating institutions across Europe.



<https://comfocus.eu/>

Dr Anna Bałamut deals with the issue of energy use at the local level (publications in *Security: Theory and Practice*):

- sustainable consumption in the ecological dimension: the ability to influence the purity of air, water and land;
- the protection of plants and animals and as an inseparable element of the household;
- conscious and responsible use of available natural resources, goods and services at the level of individuals and households, in accordance with the principles of sustainable development;
- solutions consistent with the EU low-emission policy – based on renewable energy sources, e.g. the use of renewable energy sources to produce electricity and heat on farms household waste, reducing the generation of municipal waste.
- sustainable consumption and the concept of a conscious consumer.

A conscious consumer is, above all, a responsible consumer who takes into account the entire life cycle of the product, how and from what the product was made, what impact it has on the environment and health, e.g. whether it is an ecological product (toys, tools, cosmetics, chemicals, clothes, household items, e.g. light bulbs, etc.).

Anna Balamut: I was lucky to be a participant of the Comfocus Open Call #2. Participation in the project is important due to my research interests (energy and ecological security management at the local level) and my scientific work on the faculty.

¹ COMFOCUS, <https://comfocus.eu/> [accessed: 12.12.2024].

It will give me a new scientific experience and also exchange of knowledge. Institute of Agrifood Research and Technology conducts research that fits into my scientific work carried out at our Faculty of Management and Social Communication. The subject of the study was: Are you a responsible consumer/eco-consumer? Can you not only consume but also segregate and reduce the amount of produced waste? The research was conducted with IRTA and the market research institute Global Sensory in Olesa de Montserrat (Barcelona, Spain).

Conversation

What research institute do you represent?

Luis Guerrero Asorey: The Institute of Agrifood Research and Technology (IRTA), a public research institute owned by the Government of Catalonia (Spain).

Oxana Lazo: Centro de Investigación en Biotecnología Aplicada of Instituto Politécnico Nacional (Mexico)

What research topics do you deal with on a daily basis?

Luis Guerrero Asorey: The main activity of our research group is based on the measurement of consumer behaviour integrating aspects related to the product (intrinsic and extrinsic properties), to the individual (implicit and explicit measures) and to the environment (mainly context).

Oxana Lazo: Research topics on daily basis concern food research: sensory analysis, consumer studies, food product development, food quality processes, food biotechnology.

Why the COMFOCUS project?

Luis Guerrero Asorey: The COMFOCUS project arose from the need to harmonize some of the measures commonly used for measuring consumer behaviour as well as to share the facilities and resources of the consortium members through open calls.

Oxana Lazo: Because as a researcher it is a great opportunity to learn about neuroscience using psychophysiological approaches applied to consumers within a specific context in the food sector.

What is the COMFOCUS project?

Luis Guerrero Asorey: It is a research project funded by the European Union's Horizon 2020 research and innovation programme. The project aims to integrate key European research infrastructures in the inherently multidisciplinary field of food consumer science, to promote their optimal use and joint development.

Oxana Lazo: COMFOCUS is a European project that gathers information on consumer research and allows all participants involve to provide and access a data base on

different research topics within the food research community. It provides a unique platform with harmonized measures that helps researchers to expand their understanding on consumer science and to collaborate with different experts in the field.

What role did you play in the project?

Luis Guerrero Asorey: IRTA is involved in different activities of the project, especially in the harmonisation of self-reported measurements, the elaboration of guidelines and recommendations for the use and application of different physiological sensors (behavioural neuroscience) as well as augmented reality. IRTA is also responsible for part of the activities carried out within the open call for the shared use of the facilities and equipment available.

Oxana Lazo: I participated in the study as a member of the COMFOCUS community gathering data for a project designed to analyze consumer perception of food waste. In addition the new ecological paradigm moral norms and environmental concern were also considered when collecting measures with consumers.

Do you see the possibility of combining the topic of household management within the framework of energy and ecological security at the local level with the topics you deal with on a daily basis in future research?

Luis Guerrero Asorey: Food is an important element of household functioning, and the packaging of purchased products may affect the natural environment. All human activities are related and interact with each other. It is clear that the processing and consumption of food as well as the drivers and barriers that modulate it affect multiple environmental aspects, from the use of water to the management of the waste that is generated. Therefore, both the energy aspects and those related to ecology and sustainability are topics that are frequently included in our activities as an object of research.

Oxana Lazo: Possibility of combining household management with energy and ecological security – I believe it is possible. However it requires time and education especially for ecological security sector.