SCORE Meeting Prague (2023)

SCORE Project

Structural Capacities for Tackling Wicked Problems

Czech University of Life Sciences Prague

Biogas Research Team

12.-13.10.2023

Czech University of Life Sciences Prague
Faculty of Tropical AgriSciences
Room 313

Welcome at CZU – Czech University of Life Sciences Prague

SCORE project – Meeting in Prague

Dear colleagues,

Welcome to SCORE, a groundbreaking initiative aimed at addressing the world's most complex and pressing issues. In an era where traditional policy and organizational frameworks often fall short in effectively resolving these intricate challenges, SCORE emerges as a beacon of hope. We confront what are known as "wicked problems" – those that defy easy definition, demand multifaceted solutions, and touch upon critical concerns like poverty, climate change, health, gender equality, and justice, all intricately woven into the Sustainable Development Goals (SDGs).

Furthermore, SCORE isn't just about immediate impact – it's about nurturing a new generation of scholars and problem solvers. As we navigate the project's implementation and subsequent phases, we will equip these emerging leaders with the knowledge, tools, and methodologies needed to tackle wicked problems head-on. Our commitment extends to sharing best practices, fostering interconnectedness within higher education systems, and creating sustainable networks, models, e-tools, and guidelines that will reverberate far beyond the scope of this project.

„Let´s work on WICKED problems together."

Assoc. Prof. Dr. Hynek Roubík

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Once again, I extend a warm welcome to you here at the Czech University of Life Sciences Prague, and I thank all of you for your presence here.

Sincerely,

Assoc. Prof. Dr. Hynek Roubík
Group leader of Biogas Research Team
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Content

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Venue

How to get to the university campus can be found HERE.

The main programme will take place at the Faculty of Tropical AgriSciences.

Room: 313

Search term for Google Maps: Biogas Research Team.

How to get to CZU

The basic reference point for making your way to the CZU campus is the Dejvická A metro station. After you make your way to the Dejvická station via any of the methods specified below, take bus number 107 (heading to Suchdol) or 147 (heading to Výhledy) and go to the "Zemědělská univerzita" stop. Here you will find the entrance gate to CZU.

Travelling by train

Most passengers coming to Prague via train will arrive at one of Prague's two large central stations: The Main Train Station -Hlavní nádraží (Wilsonovo nádraží), or the Holešovice station. Both stations are on metro line C (red). The Main Train Station is usually the terminal station for trains arriving from the west or from the east (Paris, Frankfurt, Stuttgart, Zurich, Warsaw, Moscow), and the Holešovice station for trains from other directions (Berlin, Dresden, Vienna, Budapest, Zagreb). To get to the Dejvická station, first take the C line (red) metro to the Muzeum station and then transfer to the A Line (green) and make your way to the Dejvická station. Passengers from Western and North-western Bohemia and Pardubice can also arrive at Masarykovo nádraží where the trains terminate. If you arrive here, then take the metro via the B line (yellow) from the Náměstí republiky station (one of the entrances to this station is right next to the exit from Masarykovo nádraží!) one stop to the Můstek station and transfer to line A (green) and continue on to Dejvická.

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Travelling by long distance bus

Passengers travelling via long distance bus from any direction, country or part of the Czech Republic will arrive at the Florenc bus station, which is right next to the Florenc metro where two metro lines intersect (B = yellow and C = red).

It is a very short trip to the Dejvická station via the metro line B first to the Můstek station, where you will transfer to line A (green), and from there you will make your way to the Dejvická station. The Prague Metro has three lines: A (green), B (yellow) and C (red). In order to get to our university, you will need to get on line A (green) and make your way to the Dejvická station. From here, using the same ticket you purchased or the metro, get on bus 107 (heading to Suchdol) or 147 (heading to Výhledy). Both stop at Zemědělská univerzita. The bus ride takes about 10 minutes.

Travelling by plane

The Václav Havel Airport is located 15 km west of the city centre. You can make your way to our university from the airport via public transport or taxi.

A public transport ticket costs 40 CZK. You have to buy it in advance, it's not possible to buy it on the board (only in selected vehicles, payment only by credit card). The tickets are valid for transfers to all public transport in Prague (buses, trams, metro, some trains in Prague and the cable car to Petřín) for 90 minutes (see details on the ticket). From the Václav Havel Airport, take bus 119, which will take you to the Metro A Veleslavín station. From the Veleslavín station, take the metro two stations towards Skalka/Depo Hostivař all the way to the Metro A Dejvická station.

The complete price list of the public transport can be found at pid.cz/tarif-web/?lang=en.

Parking

Parking is available on the university campus. You can enter it by the main gate (there is a sign for university guests).

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Accommodation

Close to the venue with an approximate price for two nights:

Hotel International Prague – 250 euro

Vienna House Diplomat Prague – 180 euro

Hotel Schweiger – 135 euro

Hotel DAP – 120 euro

Vila Lanna – 110 euro

Masarykova kolej (dormitories) – 100 euro

a&o Prague Rhea Hotel - 80 euro (further from campus)

Dormitories of our University also have some capacity for hotel rooms, but preferably contact us as soon as possible, and we will make a reservation for you. Rooms are perfectly fine for a short stay, but you may have to experience some student evening activities. The price is low, usually around 20 euros per night.

„Please, make sure you will keep all your travel documents."

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Program of the SCORE meeting

Thursday, October 12th 2023	
09:30 - 10:00	Welcome and Registration
10:00 - 11:00	Project management, implementation, and documentation
11:00 - 11:30	Coffee break
11:30 - 13:00	Integration of project result 3 (SCORE Model Guidelines) with other results
13:00 - 14:30	Lunch (self-paid)
14:30 - 15:30	Coherence of project result 4 (Informative Kit for Wicked Problems for Policy Makers) with other results
15:30 - 16:00	Coffee break
16:00 - 17:00	Alignment of project result 5 (SCORE Experimentation Report) with other results
19:00	Dinner (self-paid)
Friday, October 13th 2023	
09:00 - 10:30	Alignment of project result 5 (SCORE Experimentation Report) with other results
10:30 - 11:00	Coffee Break
11:00 - 12:30	Validation of sustainability network platform (project result 6)
12:30 - 13:00	Next actions and closing the meeting
13:00 - 14:30	Lunch (self-paid)

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Thursday, 12.10.2023

Space for your notes

Friday, 13.10.2023

Space for your notes

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SCORE Project
Structural Capacities for Tackling Wicked Problems

PROJECT CONSORTIUM

COORDINATOR

- Ss. Cyril and Methodius University in Skopje, Republic of North Macedonia

PARTNERS

- University of Ioannina, Greece
- The Czech University of Life Sciences Prague (CZU), Czech Republic
- Sofia University St. Kliment Ohridski, Bulgaria

Meeting hosted by:

Czech University of Life Sciences Prague

Biogas Research Team

About Czech University of Life Sciences

The Czech University of Life Sciences Prague (CZU) is one of the leading European institutions in the field of life sciences (Around 50th place worldwide in Agriculture and Forestry).

CZU is not just a life sciences university, but a place of innovative scientific research and discovery.

We live in a world where natural resources are being depleted at an alarming rate.

CZU emphasizes education and research in sustainable development and the conservation of biodiversity along with the responsible use of natural resources and alternative, renewable means of energy production.

CZU Prague is situated on the outskirts of Prague, on a quiet and well-equipped campus that is easily reachable from the city centre by public transport.

CZU is one of the largest universities in the Czech Republic, offering over 220 Bachelor's, Master's, and PhD study programmes. Over 50 study programmes are taught entirely in English.

More than three hundred students from our university travel each year in the framework of the Erasmus+ mobility programme, traveling to 27 countries in Europe to study for a semester or one academic year at over 200 universities throughout Europe.

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About Faculty of Tropical AgriSciences

The Faculty of Tropical AgriSciences (FTA), the Czech University of Life Sciences Prague (CZU) is a unique institution in our country with over fifty years of tradition in tropical agriculture, rural development and the sustainable management of natural resources in the tropics.

The mission of the Faculty:

The mission of the faculty is the higher education of foreign and Czech students in the fields of tropical agriculture, rural development and the sustainable management of natural and energy resources in the tropics. An integral part of our mission is Research and Development in the field of tropical life sciences and the application of R&D results to the specific conditions of tropical and/or developing countries.

The vision of the Faculty:

To be an excellent and very specific institution in the Czech Republic orientated towards the transfer of the latest knowledge and technology between the Czech Republic, the EU and tropical regions respecting the traditional values of the local communities of the developing world as well as their level of socio-economic and technological development.

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About Biogas Research Team

The main objective of the solved research at the Biogas Research Team is to determine the real impact of small biogas plants (both in developing and developed countries) on the environment, climate change and society and to contribute crucially to the current global debate on small biogas technology.

Biogas = Biogas is a mixture of gases, primarily consisting of methane, carbon dioxide and hydrogen sulphide, produced from raw materials such as agricultural waste, manure, municipal waste, plant material, sewage, green waste and food waste. It is a renewable energy source. And we do like these kinds of sources.

The main long-term research interest of the Biogas Research Team is to reveal the current state, bottlenecks and perspectives of biogas plants in both developing and developed countries.

Biogas plant = We can't speak about the term "biogas" without mentioning the biogas plants. These are simply the places where the biogas production process occurs. In plain English, a biogas plant is a system that provides an Anaerobic (oxygen-free) environment where bacteria transform biomass into biogas. It can come in different sizes and forms, and it serves to create carbon-neutral energy.

Our team is covering what we call the whole research life cycle – which, from our point of view, means that we do everything from feasibility studies, system studies, technology development, laboratory scale research, towards implementation. Furthermore, we continue with socio-economic studies and implications, gender studies as well as various environmental studies.

The research lifecycle = covers everything from the conception of a research idea through securing funding for it, building the team, partnerships or collaborators who will work on it with you, taking the project to completion and then beyond communication and dissemination to impact. The research lifecycle – with attending strategies and processes – applies as much to a small research project (for instance a fellowship) as well as major programmes of investment (such as the Global Challenges Research Fund).

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What are we starting to work on more intensively?

There are several areas that Biogas Research Teams is starting to focus on to advance the development and implementation of biogas technology. Here are some examples:

Feedstock diversity and optimization: Biogas research teams investigates new and underutilized feedstocks, such as algae, seaweed, and aquatic plants, to expand the range of materials that can be used for biogas production. Trying to explore ways to optimize the use of current feedstocks to improve biogas yields and reduce costs.

Advanced biogas production techniques: There is still much to be learned about the most efficient and effective ways to produce biogas, particularly in terms of reactor design, temperature and pH control, and pre- and post-treatment processes. Biogas Research Teams investigates novel reactor configurations, such as membrane-based and two-phase systems, and new techniques for nutrient and pH control.

Biogas utilization and storage: Once biogas is produced, it must be stored and utilized efficiently and effectively. Biogas Research Teams plans to explore new storage and utilization technologies, as well as ways to optimize existing storage and utilization methods.

Environmental and social impacts of biogas production: As biogas production continues to expand, it is important to understand the environmental and social impacts of this technology. Biogas Research Teams studies the emissions and ecological impacts of biogas production and use, as well as the social and economic benefits and challenges of biogas implementation.

Integration of biogas into energy systems: Biogas production can be integrated into existing energy systems in a variety of ways, such as by using biogas to supplement or replace fossil fuels in electricity generation, heating, and transportation. Biogas Research Teams investigates the technical and economic feasibility of these integration strategies, as well as the policy and regulatory frameworks needed to support them.

Overall, there are many exciting opportunities for Biogas Research Teams to contribute to the development and implementation of this promising renewable energy source.

Waste management side of Biogas Research Team

An inseparable part of work of Biogas Research Team is waste management research. Some of these areas include:

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Waste Reduction: One of the most important goals of waste management is to reduce the amount of waste generated in the first place. Waste reduction strategies can include better product design, more efficient manufacturing processes, and greater use of recycling and reuse.

Resource Recovery: Another important area of waste management research is the recovery of resources from waste. This can include the extraction of valuable materials from waste streams, such as metals and other minerals, as well as the generation of energy from waste.

Technological Innovation: Waste management research is also focusing on the development of new technologies that can improve the efficiency and effectiveness of waste management. These are new sorting and separation technologies, advanced recycling processes, and new methods for converting waste into energy. Especially those focused on low-cost and simple implementation.

Circular Economy: The concept of a circular economy, in which waste is minimized and materials are kept in use for as long as possible, is becoming increasingly important in waste management research. This approach emphasizes the importance of closing the loop on materials and reducing waste generation through the redesign of products and business models.

Social and Behavioral Factors: Waste management research focusing on the social and behavioral factors that influence waste generation and disposal. This could include research on consumer behavior, public attitudes towards waste management, and the role of education and outreach in promoting sustainable waste management practices.

Overall, activities of Biogas Research Team and waste management research is driven by a combination of technological innovation, environmental sustainability, and social and behavioral factors. As waste management becomes an increasingly pressing issue in many parts of the world, there is likely to be growing investment in research and innovation in this area.

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