

EEA & Norway Grants – Institutional Cooperation Programme

Application number: EHP-CZ-ICP-3-018
funded under the EEA Financial Mechanism 2014-2021
CZ-EDUCATION

Programme of the Third Peer-learning Activity
Academic Development through bilateral peer-learning activities on mission-oriented innovation for Climate Neutral and Smart Cities

May 24-25, 2023, Prague, CTU Prague

Hosting institution:

Faculty of Transportation Sciences, Czech Technical University in Prague (FTS CTU)

Co-organizer:

Faculty of Science and Technology, University of Stavanger, Norway (FST UiS).

Venue: Attention – the venue is different in each day!

Wednesday 24 May, 10AM to 1PM, meeting room, ground floor, FTS CTU building, Na Florenci 25, Prague 1, 110 00.

Thursday 25 May, 10AM to 1PM, Meeting room k-314, FTS CTU building, Konviktská 20, Prague 1, 110 00

Main objectives of this initiative:

This third peer-learning activity between FTS CTU and FST UoS is being organized within the framework of the project “Academic Development through bilateral peer-learning activities on mission-oriented innovation for Climate Neutral and Smart Cities” that is funded by the Institutional Cooperation Programme of EEA & Norway Grants.

This project is aimed at creating a bilateral synergy among academic staff members of different background of the Czech Technical University in Prague (CTU) and the University of Stavanger (UiS) in the field of climate-neutral and smart cities. A joint interdisciplinary approach is planned to be undertaken between CTU and UiS towards the improvement of education and research activities in alignment to the designated area.

CTU and UiS plan to organize four peer-learning activities (PLAs) in the framework of this project for the academic staff of different faculties in order to encourage and foster interdisciplinary sharing of knowledge and expertise and co-creation of innovative teaching methodologies and approaches through challenge-based learning in the context of sustainable, climate-resilient, attractive and productive cities. The peer learning activities will also promote mission-oriented goals in research and innovation to be pursued through European grant schemes such as H2020 and EEA and Norway Grants.

The PLAs are expected to contribute to the creation of **two Intellectual outputs**.

Intellectual output 1:

- Sourcebook 1: Innovative teaching methods and approaches in higher education on sustainable and smart cities
- Sourcebook 2: Enhancing synergy between higher education and research approaches for climate change and smart cities

Intellectual output 2:

- Sourcebook 3: Innovative methodologies and digital tools for online education in the field of smart and sustainable cities.

The peer-learning activities will serve as an opportunity to share expertise and provide feedback on the contributions of co-authors to the aforementioned sourcebooks.

At the end of the project the intellectual outputs (the sourcebooks) will be presented and promoted among external stakeholders, i.e. representatives of other universities, enterprises (including those involved in the development of e-learning platforms and online teaching tools), municipalities and civic organizations. Policy makers, training centres directors, unemployed people and students will also be invited.

The reports of PLAs and the intellectual outputs will be made publicly available in the project website to serve as a relevant and inspirational source for other universities interested in engaging in similar initiatives.

Target audience:

The **primary target groups** are early career researchers and lecturers of both universities (CTU and UiS), all fully employed by these institutions. The secondary target group will be composed by senior lecturers and researchers.

Research shows that recent graduates tend to lack more generic skills outside their own field or discipline (Germain-Alamartine et. Al. 2019). This is a result of the current education approaches adopted by most of universities. Doctoral education was primarily designed to answer the human resources needs of academia. However, nowadays, increasing numbers of doctorate holders seek employment outside academia. Accordingly, doctoral education can be one of the means by which universities take part in the development of industry in their regions.

Such generic skills that are considered useful include the ability to work across disciplines and sectors, work collaboratively in addressing societal challenges and finally to secure external funding for research and innovation. This project proposes that these challenges can be addressed in a progressional model in which researchers and lecturers from different disciplines within the field of sustainable and smart cities learn to work across disciplines and sector. The second step is to augment skills related to challenge-based research i.e. research that takes its starting point in a broader societal challenge rather than a specific disciplinary research project. In other words the

participants are able to contextualize their own research as a component towards broader societal challenges. Finally, the participants will be introduced to mission-based research & innovation as a way to think about and organize challenge-based research. The target groups will benefit from the project by becoming prepared for how to work within the new research and innovation framework in the upcoming Horizon Europe Framework and elsewhere whether they decide to remain in academia or will enter knowledge intensive industries.

Programme of the Third Peer-Learning Activity

May 24, Wednesday

Thematic area: Innovative Teaching Methods and Approaches

10:00 – 11:30 | Case Studies for challenge-based learning

Lecturers/researchers involved in this topic:

Masoumeh Shahverdi (UiS), Nelly Narges Karimi (UiS), Ticiano Costa Jordao (CTU), Tetiana Reznychenko (CTU), Jana Kuklova (CTU), Vladimir Faltus (CTU), Ales Lisa (Prague University of Economics and Business, PUEB), Petr Sauer (PUEB)

There are chapters on sourcebook 1 that will be dedicated to this topic and participants will share their developed case studies or how they plan to further develop their case studies.

It will also be discussed how the chapters will be presented in the sourcebook and if some of them will be merged or changed. The outline of sourcebook 1 will be presented for brainstorming.

Deadline for delivery of chapters for sourcebook 1 will be set.

Thematic area: How to improve research activities towards the mission goals of the European Union related to climate change and smart cities

11:30 – 13:00 | Theoretical framework and examples on how to enhance capacity for European universities to work towards the Horizon Europe mission on climate-neutral and smart cities.

Lecturers/researchers involved in this topic:

Anders Riel Muller (UiS), Cristian Tosa (UiS), Ticiano Costa Jordao (CTU), Sergei Kozhevnikov (CTU)

Other local contributors: Tomas Tichy (CTU), Josef Filip (CTU), Vaclav Jirovsky (CTU), Miroslav Svitek (CTU).

There are chapters in sourcebook 2 that will be dedicated to this topic and participants will share their developed chapters or will present how they plan to develop their chapters.

It will also be discussed how the chapters will be presented in the sourcebook and if some of

them will be merged or changed. The outline of sourcebook 2 will be presented for brainstorming. Deadline for delivery of chapters for sourcebook 2 will be set.

May 25, Thursday

Thematic area: Innovative e-learning approaches and tools for higher education in sustainable and smart cities

10:00 – 11:30 | Exploring innovative e-learning platforms and innovative digital tools for e-learning activities related to climate change and smart cities

Lecturers/researchers involved in this topic:

Ticiano Costa Jordao (CTU), Marco Lamas (on behalf of CTU), Sergei Kozhevnikov (CTU), Vladimir Faltus (CTU), Eduardo Carrillo (on behalf of CTU), Nelly Narges Karim (UiS), Masoumeh Shahverdi (UiS), Tegg Westbrook (UiS)

There are chapters in sourcebook 3 that will be dedicated to this topic and participants will present how they plan to develop their chapters.

It will also be discussed how the chapters will be presented in the sourcebook and if some of them will be merged or changed. The outline of sourcebook 3 will be presented for brainstorming.

11:30 – 13:00 | Challenges and opportunities of using innovative e-learning approaches and digital tools in higher education in smart and sustainable cities

Lecturers/researchers involved in this topic:

Ticiano Costa Jordao (CTU), Marco Lamas (on behalf of CTU), Sergei Kozhevnikov (CTU), Vladimir Faltus (CTU), Eduardo Carrillo (on behalf of CTU), Nelly Narges Karim (UiS), Masoumeh Shahverdi (UiS), Tegg Westbrook (UiS)

There are chapters in sourcebook 3 that will be dedicated to this topic and participants will present how they plan to develop their chapters.

It will also be discussed how the chapters will be presented in the sourcebook and if some of them will be merged or changed. The outline of sourcebook 3 will be presented for brainstorming.

Deadline for delivery of chapters for sourcebook 3 will be set.

13:00 – 13:30 | Roundtable final discussions ahead of peer-learning activity 4 in Stavanger and the multiplier events