

Report on the outcomes of a presentation and participation - Young Researcher and Innovator Conference¹

Action number: CA20108

Grantee name: Enrichetta Fasano

Conference Details

Conference title: ICUC12

Conference web-page: <https://www.icuc12.eu/>

Conference venue²: World Trade Center in Rotterdam, The Netherlands.

Conference start and end date: 07/07/2025 to 11/07/2025

Accepted contribution details

Title of the presentation: Mobile Ground-Based Measurements of CO₂ Fluxes in Vienna

Type of the presentation: ORAL

Co-authors: , Bradley Matthews, Kathiravan Meeran, Simon Leitner, Francesco Vuolo, Andrea Watzinger, and Helmut Schume

Session: Recent advancements in monitoring and modelling urban greenhouse gas emissions

Outcome of the conference participation

Participation in the ICUC12 conference provided a valuable opportunity to engage with leading experts in urban climate research and to showcase our work on urban CO₂ flux measurements. The oral presentation on *Mobile Ground-Based Measurements of CO₂ Fluxes in Vienna* was well received and generated significant interest, particularly because of its novel approach to using mobile sensing platforms in complex urban environments.

During the session, after my presentation there was a lively discussion on the accuracy of mobile CO₂ flux measurements compared to stationary and remote sensing methods. Audience members, including senior researchers posed questions regarding the calibration of the EC, the representativeness of mobile sampling in diverse urban settings, and integration with modelling frameworks. These discussions were directly encouraged by me, since the scope of my participation in this specific session, was to be in direct contact with all the big researchers of my fields, that is very specific. In one of my final slides, I encouraged the audience to give me feedback and insight.

A key outcome of the participation was the establishment of new professional connections. In particular, contact was made with research groups from Switzerland working on complementary techniques for urban greenhouse gas monitoring. Preliminary talks explored the possibility of testing my method also

¹ This report is submitted by the grantee to the Action MC for approval and for claiming payment of the awarded grant. The Grant Awarding Coordinator coordinates the evaluation of this report on behalf of the Action MC and instructs the GH for payment of the Grant.

² For an online conference, specify virtual participation; for hybrid conferences, specify whether it is an in-person or virtual participation.

in other city enable cross-city comparisons. This networking was further facilitated by informal gatherings organized during the conference.

The conference also offered an excellent platform for staying informed about recent technological and methodological developments in urban climate science. Sessions covering low-cost sensors, data fusion techniques, and high-resolution urban climate modelling were particularly relevant and will inform the next steps of the research.

Several informal discussions over a coffee, or lunch enabled a possible exchange of data, that we have in big quantity from Vienna, but that can be used to train other algorithms or models.

Moreover, participating in ICUC12 as a young researcher contributed to the development of professional confidence and communication skills. Presenting to an international audience strengthened public speaking and scientific dissemination abilities. Feedback from both peers and senior researchers was constructive and encouraging, highlighting also my good capacity in catching the audience.

I was also able to meet again all the people I had the opportunity to meet in this years, in other Conference, summer school, Erasmus and reconnect on both human and scientific side.

In conclusion, the ICUC12 conference significantly enhanced the visibility of our research on urban CO₂ flux measurements and opened avenues for collaboration, methodological improvement, and scientific dialogue. The knowledge and connections gained during the event will directly contribute to the advancement of ongoing projects and reinforce our contribution to the broader research community concerned with urban climate mitigation and sustainability.

Acknowledgement of inclusion of necessary supporting documents to claim the grant

I confirm that the following documents have been uploaded on e-COST as an integral part of this report:

- the certificate of conference attendance.
- the programme of the conference or book of abstracts / proceedings indicating the presentation (oral or poster) of the grantee.
- copy of the given presentation (oral or poster).