

Report on the outcomes of a Short-Term Scientific Mission¹

Action number: CA20108

Grantee name: Mr Damhan Richardson

Details of the STSM

Title: Micrometeorological Data Acquisition, Analysis and Gap Filling using in-situ Measurements

Start and end date: 05/08/2024 to 09/08/2024

Description of the work carried out during the STSM

Description of the activities carried out during the STSM. Any deviations from the initial working plan shall also be described in this section.

Damhan Richardson received an explanation and briefing on the different types of instruments used for collecting micrometeorological data, and an overview of some of their positions in Novi Sad.

Damhan received instruction on setting up one type of these instruments (Kestrel) and set it up outdoors to experience the workflow and process of collecting the data.

Jelena Dunjic received training on creating structured database schemas to store existing collected data (using MySQL database management system and MySQL Workbench) with instruction on how to apply this to future collected data.

Through hands on demonstration, Jelena was trained in query creation using the SQL query language to retrieve data and run analyses of various complexity on their data. This SQL query training extended to the analysis of identifying gaps, outliers and other features of the data.

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.

Description of the STSM main achievements and planned follow-up activities

Description and assessment of whether the STSM achieved its planned goals and expected outcomes, including specific contribution to Action objective and deliverables, or publications resulting from the STSM. Agreed plans for future follow-up collaborations shall also be described in this section.

With respect to the STSM goal of developing a better methodology for data management in climate study data acquisition, the planned goals of the STSM were met. The additional goal of the mission involving trans-disciplinary training was also a success, with both participants expanding their understanding of the two adjacent fields: data science and climate science. The outcome being, the practise of data science with a better understanding of the domain for Damhan Richardson, and for the better handling of all data associated with the climate study work of Jelena Dunjic.

Talks of a resulting publication between participants is under discussion, with the potential of a paper discussing the process of data engineering coming together with the work of person(s) in climate science, or perhaps through a traditional collaboration on taking a data scientist approach to upcoming problems in climate studies. These future follow-up collaborations may be built on existing data possessed by Jelena Dunjic or through the collaboration on future acquired data, this year or next.