

Report on the outcomes of a Virtual Mobility¹

Action number: CA21119

Grantee name: Dr. Lionel Doppler

Virtual Mobility Details

Title: Data processing and analysis for aerosol optical depth homogenisation and spectral AOD retrievals – writing and editing of deliverables.

Start and end date: 01/08/2026 to 30/09/2026

Budget claimed: 1200 euro.

Description of the work carried out during the VM

Description of the virtual collaboration and activities carried out during the VM, with focus on the work carried out by the grantee. Any deviations from the initial working plan shall also be described in this section.

(max. 500 words)

During the VM there was leading contribution to the WG1 Deliverable D1.3. and D1.5 report and contribution to the preparation and review of deliverable D1.4.

Complete names of the deliverables:

D1.3: Harmonised AOD retrievals & AOD comparisons

D1.4: Spectral AOD and AOD in the UV

D1.5: Photometry from day to night in Europe: solar, lunar and stellar. Historical approach new methods and synergies

The grantee contributes mainly to 4 parts:

- 1) For D1.3 Concept of the document, definition of the structure of the document, lead of the edition of the deliverable, collecting the contribution of other contributions and writing the main part of the document.
- 2) For D1.3: Homogenised and Harmonized AOD comparison study

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 Grant Holder Manager to verify the grant documents compliance and proceed with the payment.

- A) Processing and homogenisation of the “Lindenberg Dataset” of the AOD at 500 nm of the three main instruments (Prede POM-02, CIMEL, PFR) for a harmonized comparison of the three systems.
 - B) Based on the data prepared by Angelos Karanikolas (see his VM report), lead a comparison study of the AOD of the instruments PFR vs CIMEL of the GAW-PFR & AERONET stations Izaña (IZO), Davos (DAV), Hohenpeißenberg (HPB) and Valladolid (VAL) – See map on Figure 1
 - C) Presenting the results of the comparisons in the report D1.3.
- 3) For D1.4: Concept of the document, definition of the structure of the document (both together with Angelos Karanikolas who has the lead of this report), support Angelos Karanikolas in the editing choices, collecting some contributions and review of the document.
 - 4) For D1.5 Concept of the document, definition of the structure of the document, lead of the edition of the deliverable, collecting the contribution of other contributions and writing the main part of the document.

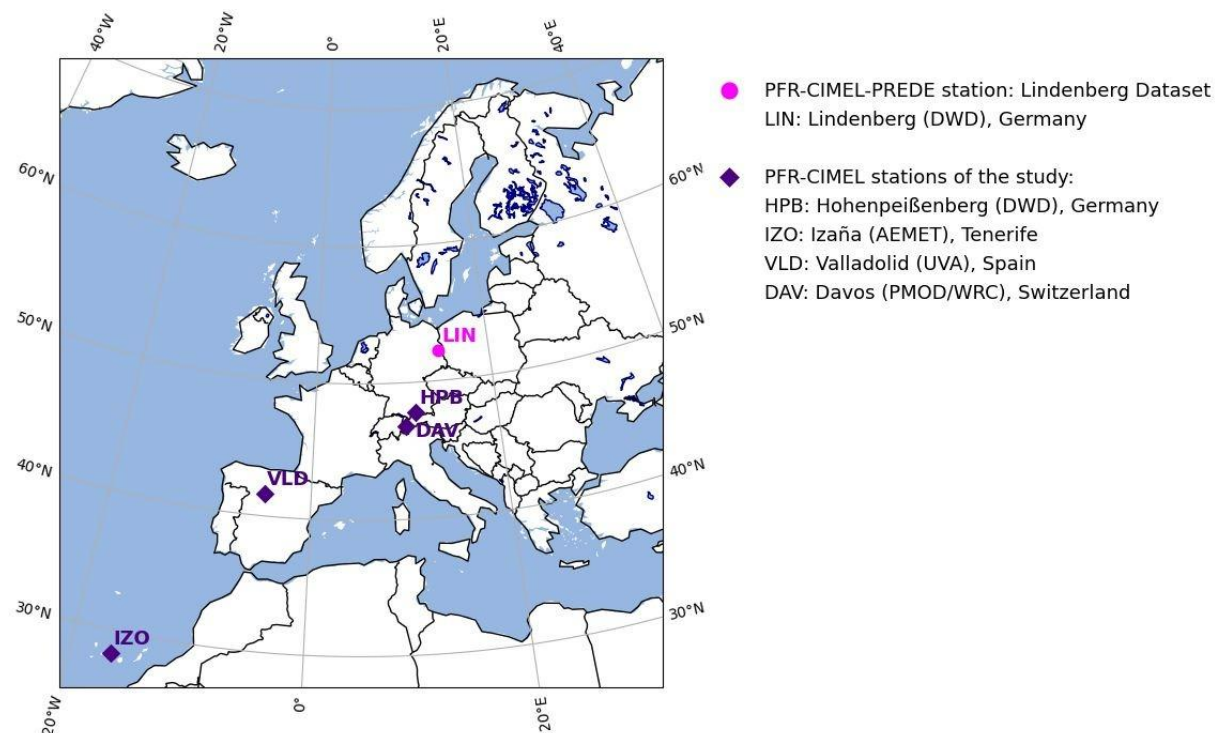


Figure 1: Map of the stations of the study of intercomparison PFR-CIMEL at some sites that are as well GAW-PFR and AERONET stations

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

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

(max. 500 words)

The VM achieved its planned goals -Task by Task:

- 1) (D1.3) The Deliverable D1.3 “Harmonised AOD retrievals & AOD comparisons” will be submit for 26 October 2026 and is in good progress. The draft evolution can be monitor throw following (GoogleDoc) link:

<https://docs.google.com/document/d/1SKHhWSq2192IErDcV0WR6BIFGjXtGV4GdtujvLBG2Yk/edit?tab=t.0>

(put the two lines together and cancel the space between the two parts)

- 2) (D1.3) The study about Lindenberg Dataset is completed – The study about comparisons PFR vs CIMEL at the sites of the map of Figure 1 is in progress and in the timing for being integrated in the deliverable before submission (26 October 2026).
- 3) (D1.4) All needed contributions are collected. The structure and the concept is defined and the content is almost completed. Progresses in the D1.4 draft are visible in life under following link (GoogleDoc): https://docs.google.com/document/d/1czwJyb9iomR40SHjs_ab-r8II3_KMmKnoozHX24rHZ0/edit?tab=t.0
- 4) (D1.5) The Deliverable D1.5 “Photometry from day to night in Europe: solar, lunar and stellar. Historical approach new methods and synergies” will be submitted for 26 October 2026. Most of the needed contributions are collected. The structure and the concept are defined and the major parts of the contents are almost completed. Progresses in the D1.5 draft are visible in life under following link (GoogleDoc): <https://docs.google.com/document/d/1qUUc1v0nifY2IVXTX4gVJbNdz3-JLcZDZaByrRWUE8o/edit?tab=t.0>

The VM outcome contributes to the deliverable D1.3 “Harmonised AOD retrievals & AOD comparisons” and includes the leading contribution to the deliverable D1.4 ‘Spectral AOD and AOD in the UV’ and “Photometry from day to night in Europe: solar, lunar and stellar. Historical approach new methods and synergies” of WG1 of COST action Harmonia.