

ACTRIS  
CCRES

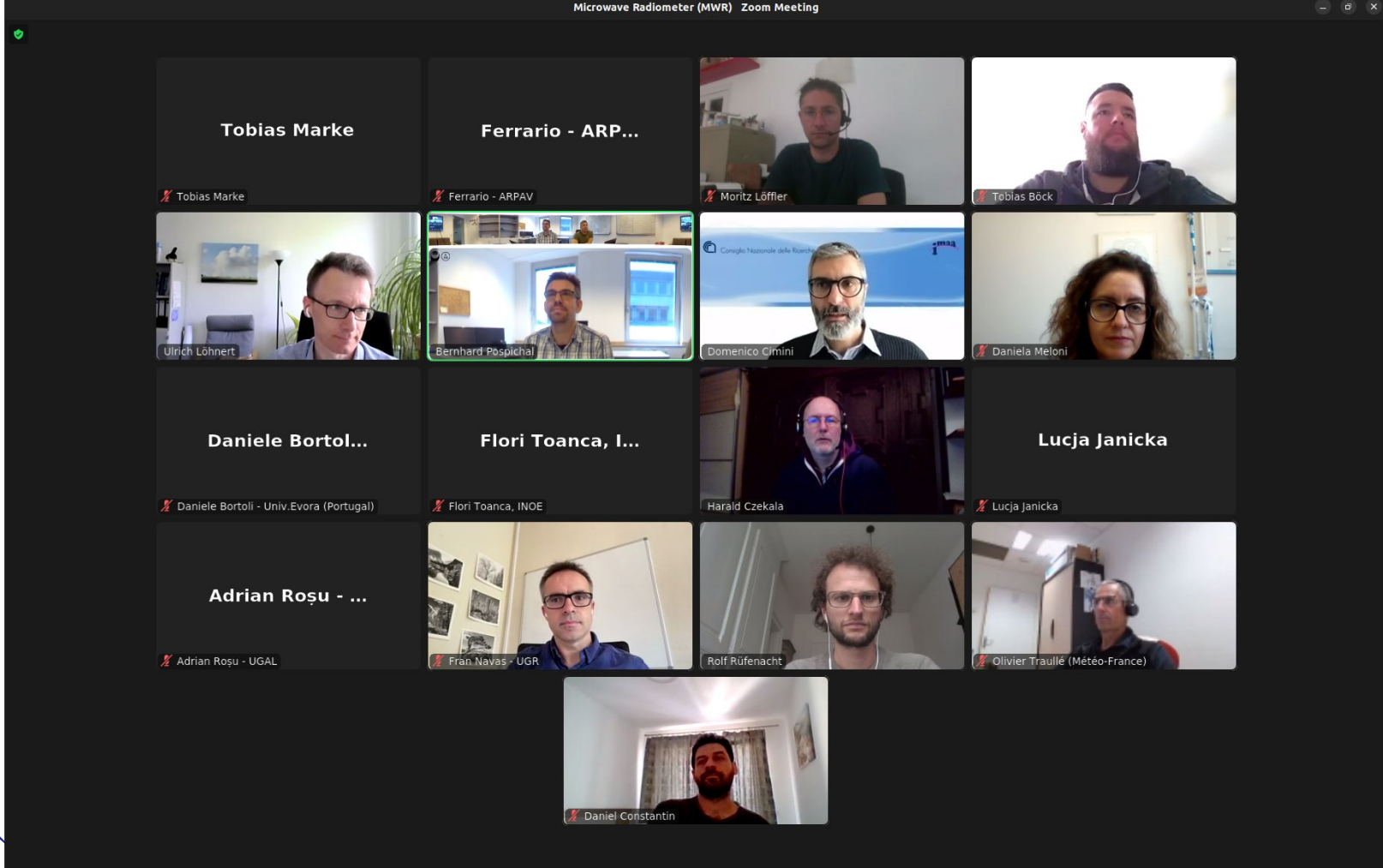
**ACTRIS / E-PROFILE / PROBE Joint  
Workshop  
MWR Breakout Group**

The logo features the word "ACTRIS" in a light blue, sans-serif font, with a vertical line extending upwards from the letter 'A' and several light blue circles of varying sizes floating above it. Below "ACTRIS" is the word "CCRES" in a dark blue, sans-serif font. A dark blue arc curves over the top of the text.

***ACTRIS / E-PROFILE / PROBE Joint Workshop, Online – May 26 2023***



This project receives funding from the European Union's Horizon 2020 research and innovation programme under grant agreements No 871115

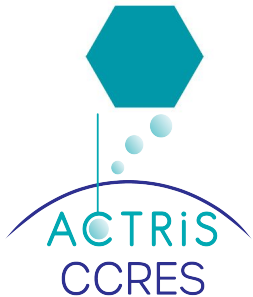


# Minutes of MWR Breakout Group

- **Current status of data processing and retrieval development** (R. Rüfenacht, T. Marke)
  - E-PROFILE: Level 1 and data transfer ready, pilot network with different types of instruments, 1D-Var as retrieval approach (future), BUFR format developed for Level 1 & 2
  - ACTRIS: Level 1 and data transfer ready, processing started for pilot stations, statistical retrieval approach (future)
- **Joint SOPs regarding scanning, calibration and data streams** (B. Pospichal)
  - Enable stations to be part in both networks
  - Scanning strategy and data transfer schedule (elevation scanning vs vertical pointing, cycle start time)
  - File and variable naming
  - Consent on file content and calibration procedures
  - Defining additional requirements for RPG software

# Minutes of MWR Breakout Group

- **Plans for GRUAN MWR data product** (N. Cimini)
  - Ancillary instrument for GRUAN radiosonde stations
  - Task team starting the development of a MWR GRUAN data product
  - Includes ACTRIS & E-PROFILE sites (e.g. Payerne, Lindenberg, Ny-Alesund)
  - ACTRIS & GRUAN share most of the requirements
  - Cooperation to be established
- **Uncertainty characterization and quality control**
  - Discussion on need for continuing efforts and documenting / publishing results

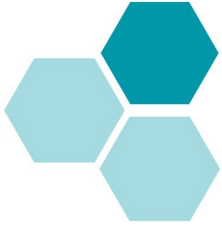


# Discussion Points for Panel Summary

- List proposed activities, conducted within ACTRIS, PROBE, E-PROFILE.
  - SOPs – incl. scanning and scheduling requirements ✓
  - Data format (« RAW2L1-like ») ✓
  - Calibration ✓
  - Corrections / pre-processing
  - Quality control (Housekeeping variables, Geophysical variables) ✓
  - Single-instrument products ✓
  - Necessary ancillary data (if any)
- List available resources (repositories for codes, documents, ...)
- Identify contributions towards PROBE / ACTRIS / E-PROFILE deliverables
- List needs for PROBE support grants (in-person visits STSM; virtual mobility grants VMG)
- Calendar of activities
- Identify areas that lack activity
- Propose specific workshops and training

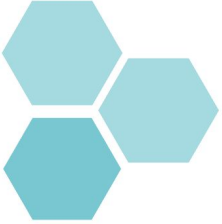


# List available resources (repositories for codes, documents, ...)



For ACTRIS:

- <https://github.com/actris-cloudnet/mwrpy> - Code
- <https://www.actris.eu/topical-centre/ccres/microwave-radiometer> - SOPs, etc.
- <https://cloudnet.fmi.fi/> - Data and quicklooks



For E-PROFILE:

- [https://github.com/MeteoSwiss/mwr\\_raw2l1](https://github.com/MeteoSwiss/mwr_raw2l1) - Code
- <https://e-profile.eu/> - Data (linked) and quicklooks



For PROBE:

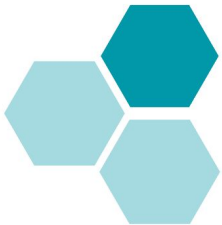
- [https://www.probe-cost.eu/images/pdfs/WG34\\_joint\\_docu/PROBE\\_joint\\_document\\_chap2d\\_mwr\\_vers1.pdf](https://www.probe-cost.eu/images/pdfs/WG34_joint_docu/PROBE_joint_document_chap2d_mwr_vers1.pdf) - MWR document





# Identify contributions towards PROBE / ACTRIS / E-PROFILE deliverables

## PROBE deliverables



D3.3: Recommendations and prototype tools for centralized processing and network monitoring

D4.1: Recommendations for configuration, operation, calibration, quality control

D4.2: Delivery of algorithms or codes to produce level1 and level2 data products, handling manufacturer and generation heterogeneity with uniform metadata



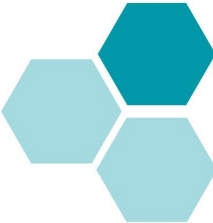

## ACTRIS deliverables during implementation phase (2021-2025)

In line with PROBE





# List needs for PROBE support grants (in-person visits STSM; virtual mobility grants VMG)

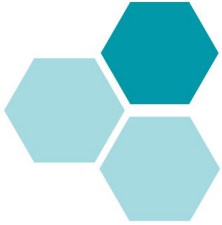
- 
- Technical meeting on compiling joint SOPs and finalize common data format (VMG?)
  - Working group on MWR Level 1 (brightness temperatures) uncertainty characterization (STSM), preparation of manuscript based on past VMG
- 



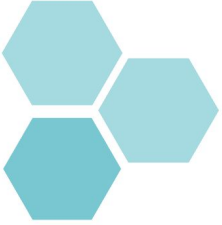


# Identify areas that lack activity & Propose specific workshops and training

- In depth discussion on radiative transfer models
- Retrieval approaches and comparisons
- Future developments in network operations
- Retrieval for forecast indices



→ Expert workshop (in-person) in Cologne (Nov 2023 / early 2024) or during next community meeting



→ Hands on training workshop in Jülich in 2024 (spring / summer)

