TOPROF Contributions from DE

***Ceilometers**: DWD Hohenpeißenberg (MOHP) and Lindenberg (MOL), TROPOS Leipzig, LMU München, Jenoptik*

***Doppler Lidar**: MOL, Forschungszentrum Jülich (FZJ), University of Cologne (UC)*

***Microwave Radiometers**: UC, University of Leipzig, MOL, Radiometer Physics GmbH*

***Data Assimilation**: DWD Offenbach*

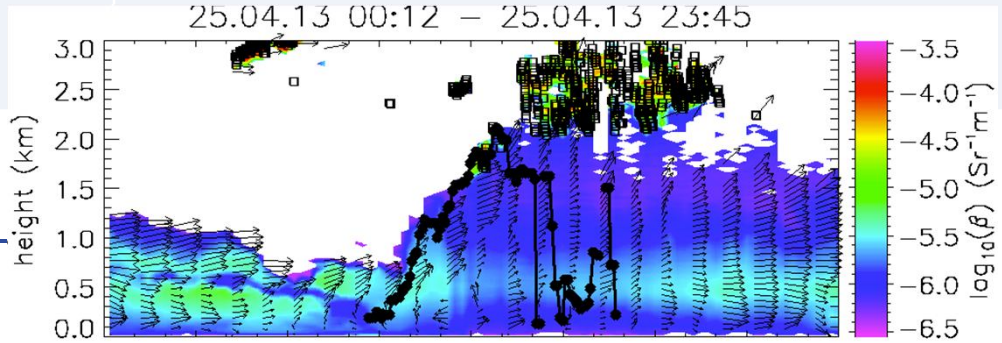
CONSORTIUM FOR SMALL SCALE MODELING

COSMO

Ceilometer network and Doppler Lidar

Deutscher Wetterdienst
Wetter und Klima aus einer Hand

	Ceilometer network (DWD)	Doppler Lidar
Contribution	• Continuous measurements with about 60 stations • Data homogenization & near-real time data processing (~2h from meas. to quicklook) • Expertise ceilometer calibration	
Expectation	• Automatic & standardized backscatter calibration algorithm (different instruments) with error characterization • Automatic & harmonized cloud base, aerosol mass extinction, BLH… retrieval (+ errors) • Access European ceilometer data → broad test basis for algorithm application	



HD(CP)²
High definition clouds and precipitation for advancing climate prediction

Microwave Radiometers & Data Assimilation

	Microwave Radiometers	Data Assimilation
Contribution	• Long-term MWR operation at FZJ, MOL, TROPOS • Expertise calibration, retrieval development • Beginning of standardized data processing (HD(CP)^2)	• text
Expectation	• Enhanced development of MWRnet (core stations) • Standardized instrumental error characterization methods • Platform for continuous O-B statistics • Assess potential for DA	• text