EUMETNET Observations Programmes

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EUMETNET Observations Programmes
EUMETNET is responsible for the design and co-ordination of the ground based European Composite Observing System (EUCOS). It runs six programmes related to meteorological observations. These are for Airborne Observations (E-ABO), Automated Shipboard Aerological Programme (E-ASAP), GNSS Water Vapour Programme (E-GVAP), Profiling Programme using wind observations from weather radars and dedicated wind profilers and Lidar/Ceilometer observations (E-PROFILE), Surface Marine Programme (E-SURFMAR), Operational Programme for the Exchange of Weather Radar Information (OPERA).

EUMETNET observations programmes are very important in providing input into Short Range Numerical weather prediction models (SRNWP). Many NMSs have or are developing seamless weather prediction systems and observation/model blending to bridge the gap between traditional observation based nowcasting (0 to 2 hour range) and very short range forecasting 0 to 12 hour range or longer) using high resolution NWP with a spatial resolution of 1km or less and temporal resolution of 1 hour. For SRNWP, observational requirements are best satisfied by frequent monitoring of the location, intensity, movement and evolution of the phenomena of interest. It is essential that suitable observations are available for:

• Assimilation by the high-resolution NWP with rapid update cycle.

• Assessment and evaluation of model output by the forecaster enabling appropriate action to be taken as necessary.

• capturing small scale details that may be unresolved by the model

• forecast / warning verification

Requirements of data quality and spatial availability are high and data assimilation requires incoming data to be available in a timely manner

This talk gives a description of the EUMETNET observations programmes and outlines the goals and key objectives of the observations programme for the next five years with particular emphasis on the needs of SRNWP.