



## **AutoWARN - Automated Decision Support for the Weather Warning Service**

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As part of its overall strategy, the German Weather Service (DWD) is undertaking further automation of its weather warning processes and a centralization of the warning service from the existing offices in the German regions to the headquarters in Offenbach. In order to achieve these goals the system AutoWARN has been developed.

In a first step available NWP model and ensemble forecasts (COSMO-DE-EPS, ECMWF(-EPS), GME/ICON) are combined into a single warning forecast product (ModelMIX) using an Ensemble Model Output Statistics (Ensemble-WarnMOS) approach. DWD Nowcasting Products (KONRAD, CellMOS, RADVOR-OP, VIL derived from 3D-Radar data) are combined with observations and model output (COSMO-DE) to obtain a robust Nowcasting Warning Product (NowCastMIX), updated every 5 minutes. These products with a spatial resolution of 1 km are integrated by AutoWARN in order to generate automatic warning proposals that can be manually controlled and modified by forecasters. Forecasters then generate a final warning status which is used to produce the full range of individual textual and graphical warning products for customers in a fully automatic mode.

The presentation gives an overview of the entire system, illuminating the individual components and their operational introduction.