

EUMETNET

Weather Forecasting Cooperation

E-WFC

46th EWGLAM and 31th SRNWP Meeting
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New EUMETNET Programmes' structure in CSA CA

Capacity Capability Area – CSA CA

EUMETNET Weather Forecasting Cooperation, E-WFC

EMMA

Climate

Aviation

EUMETCAL

C-SRNWP

SRNWP-EPS

Post-Processing, PP

EUMETNET-Nowcasting, E-NWC

PEP725

eGAFOR

CBCF

C-SRNWP: Coordination on Short Range Numerical Weather Prediction

DWD, Germany

AIM

exchange and cooperation between **limited area modeling consortia in Europe**

THROUGH

efficient exchange of information on scientific, technical and operational aspects of NWP

FOCUS ON THE NEW CHALLENGES

for the development of next generation forecasting systems

high resolution and **Digital Twins** -> applications and the end-users

AI/ML based method -> interaction with the traditional NWP approaches

representation of **uncertainties** -> with SRNWP-EPS

Cooperative effort and synergies with the other Modules

SRNWP-EPS: Short Range NWP Ensemble Prediction Systems

DWD, Germany – AEMET, Spain – Itaf-Met, Italy

AIM

exchange and cooperation on **limited area ensemble prediction systems**

THROUGH

interpretation and communication of ensemble forecasts

development of improved information, knowledge and products

ensemble machine learning applications for High Impact Weather Forecasting and calibration of LAM ensembles

cooperation between members improving the representation of model uncertainties relevant for high-impact weather

coordinate and foster in-kind research on model uncertainties

LAM EPS database

PP: Post Processing

RMI, Belgium

AIM

Define best-practices and demonstrate benefits for the use of postprocessing

THROUGH

Maintenance of the Benchmark platform on Statistical Postprocessing of ensembles

Carry out a benchmark of statistical postprocessing tools as a function of model resolution up to very high-resolution ensembles, in particular for extreme events (ML techniques)

Facilitate sharing and developing techniques for impact-based forecasts, using tools of statistical postprocessing, based on requests from stakeholders (forecasters, and specific regional authorities)

Ensure exchange of expertise and knowledge through conference sessions and workshops on statistical postprocessing, in particular for impact-based forecasts

E-NWC: EUMETNET Nowcasting

GeoSphere Austria, Austria

AIM

Advance the cooperation in nowcasting and seamless issues through common projects, conferences and cooperation with other EUMETNET Programmes (e.g. EMMA, E-AI, EUMETCAL)

THROUGH

Organisation of nowcasting related sessions at conferences / workshops

Explore nowcasting, Very Short Range Forecasting and seamless forecasting on different applications with scientific focus on parameters such as solar radiation, wind, convective gust, fog (visibility); Rapid Update Cycle, Machine Learning, Artificial Intelligence methods

Impact-based forecasting: improve the link to applications / society / users; Connection with stakeholders from renewable energy sector; e.g. invite users to conference; discuss products / limitations / possibilities / developments

Collaboration opportunities with WMO: research activity focused on nowcasting capabilities and Early Warning Systems (EWS) in the different WMO Regional Associations. National Meteorological and Hydrological Services worldwide were surveyed between 2021 and 2024. <https://wwrp-nowcastingcapabilities.com/>; paper: work in progress

E-WFC: EUMETNET Weather Forecasting Cooperation

GeoSphere Austria, Austria - DWD, Germany – AEMET, Spain – Itaf-Met, Italy – RMI, Belgium

AIM

Provide a platform to enhance the capabilities of each Participating Member to tackle the challenges in the different Modules (nowcasting, short range forecasting, Numerical Weather Prediction and seamless prediction systems with optimized Post Processing and Ensemble Prediction System)

Better use of Modules' **synergies**

EUMETNET Weather Forecasting Cooperation, E-WFC

C-SRNWP

SRNWP-EPS

Post-Processing, PP

EUMETNET-Nowcasting, E-NWC

THROUGH

Explore (new) data sources relevant for E-WFC

Agree on and implement E-WFC training needs of EUMETNET Members; intensify the cooperation with EUMETCAL Programme; survey results about interests in training from last European Nowcasting Conference 2022 shared with EUMETCAL; deduce potential future training activities

Short Term Scientific Missions for young scientists; 2 missions per year; application form available; first mission in autumn 2024

European Nowcasting and Weather Forecasting Conference (ENWFC-2024) as continuation of the biennial series of European Nowcasting Conference, and – for the first time - organized by the three Modules: E-NWC, PP, SRNWP-EPS within E-WFC: Oslo Science Park, 4 to 8 November 2024; <https://enwfc-2024.met.no/>; programme will be released today!

Questions?

