



## **EUMETNET SRNWP-EPS: phase 2019-2023**

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SRNWP EPS module/project into EUMETNET NWP Cooperation Programme has as main goals facilitating and coordinating the cooperation on developing reliable mesoscale convection-permitting ensemble systems (LAM-EPS) in Europe, and, at the same time, grouping efforts developing tools which can be smoothly applied to any LAM-EPS. This is motivated by the fact that the development of LAM-EPS capabilities in Europe is crucial for forecasting a range of weather phenomena and in particular for improving high impact weather prediction. Due the latter the current SRNWP-EPS 2019-2023 phase is focused on extreme events.

SRNWP-EPS Phase 2019-2023 main activities are explained referencing to what was yet done in previous Phase II (2015-2018).

SRNWP-EPS cooperation with other EUMETNET programmes/modules is essential and promoted in the current phase being necessary with C-SRNWP, Post-Processing and Nowcasting modules.

The SRNWP-EPS has to main R2O (Research to Operations) mandatory application tools to be developed: the calibration tools of LAM-EPS for forecasting extremes for variables such as 10m winds, precipitation, 2m temperatures, maximum and minimum temperatures; and the forecasting post-processing LAM-EPS products devoted to high impact weather forecasting (e.g. gusts, icing, fog, severe convection, wind storms, turbulence). Moreover in 2021-2023 period are expected to have funds to develop some additional R2O LAM-EPS softwares: tools to produce post-processed parameters as radar reflectivity and satellite pseudo-imagery, tools for compute Extreme Forecast Index (EFI) and Shift of Tales Index (SOT), and tools to select sub-ensembles through some member selection methodology.

The SRNWP-EPS has as well a challenging research oriented objective to be achieved as in-kind contribution between the participants: improving LAM-EPS representation of NWP model uncertainties relevant for forecasting high impact weather phenomena. This will be carried out through coordinated tests of relevant perturbations on different domains using different LAM-EPS to be discussed and set by SRNWP-EPS Expert Team mainly in the Annual SRNWP-EPS Workshop.

Finally SRNWP-EPS has a third objective: the end-user oriented one. This one is expected to be accomplished engaging with Meteorological Service's participants end-users and forecasters in an User Group, getting feedbacks from the EUMETNET forecasting community, and being aware of the requirements of the several potential end-users into the social-economic sectors in Europe with an strong focus on Renewable Energy Sector.