

Status of the EUMETNET C-SRNWP Module

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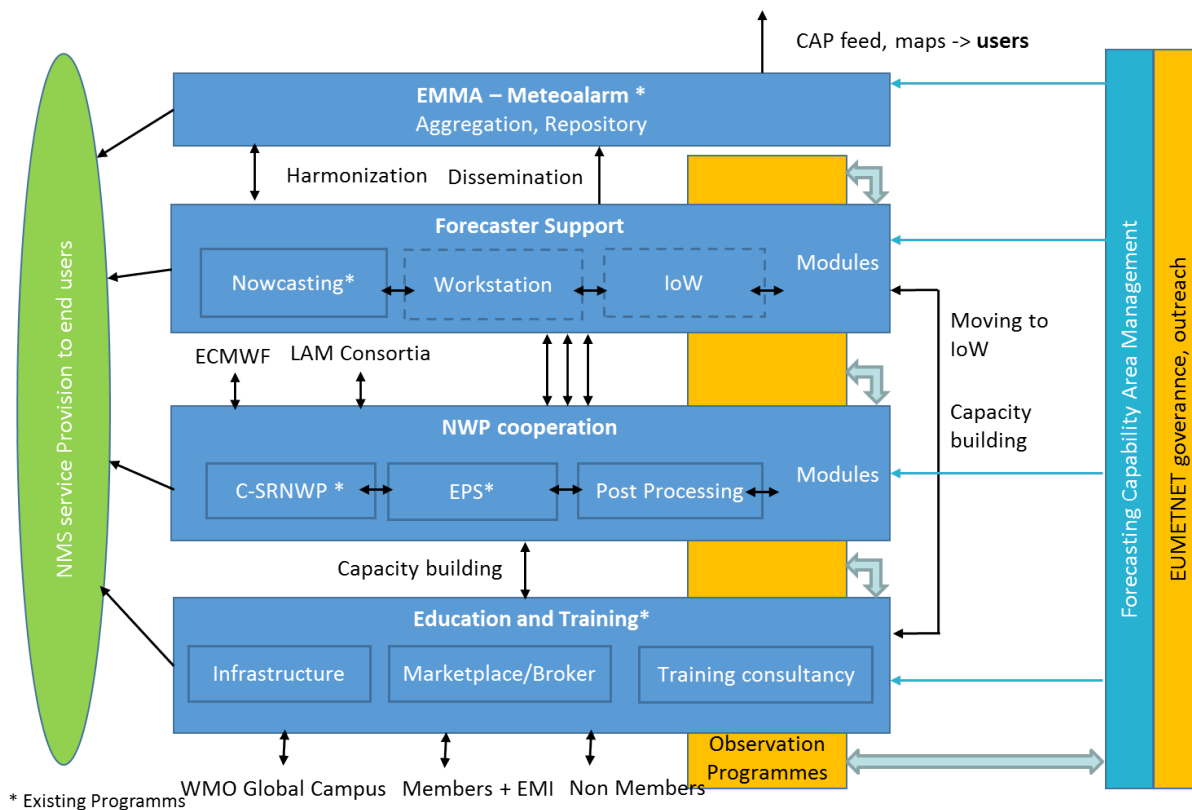
with inputs from experts of ALADIN, COSMO, HIRLAM, LACE, SEECOP, UKMO

Outline

- New structure of Forecasting CA
- Structure of C-SRNWP
- Observation network design support
- EWGLAM Meeting
- Short Term Scientific Missions
- SRNWP data pool
- Global Lake Database
- EMS Annual Meeting
- Website, mailing lists

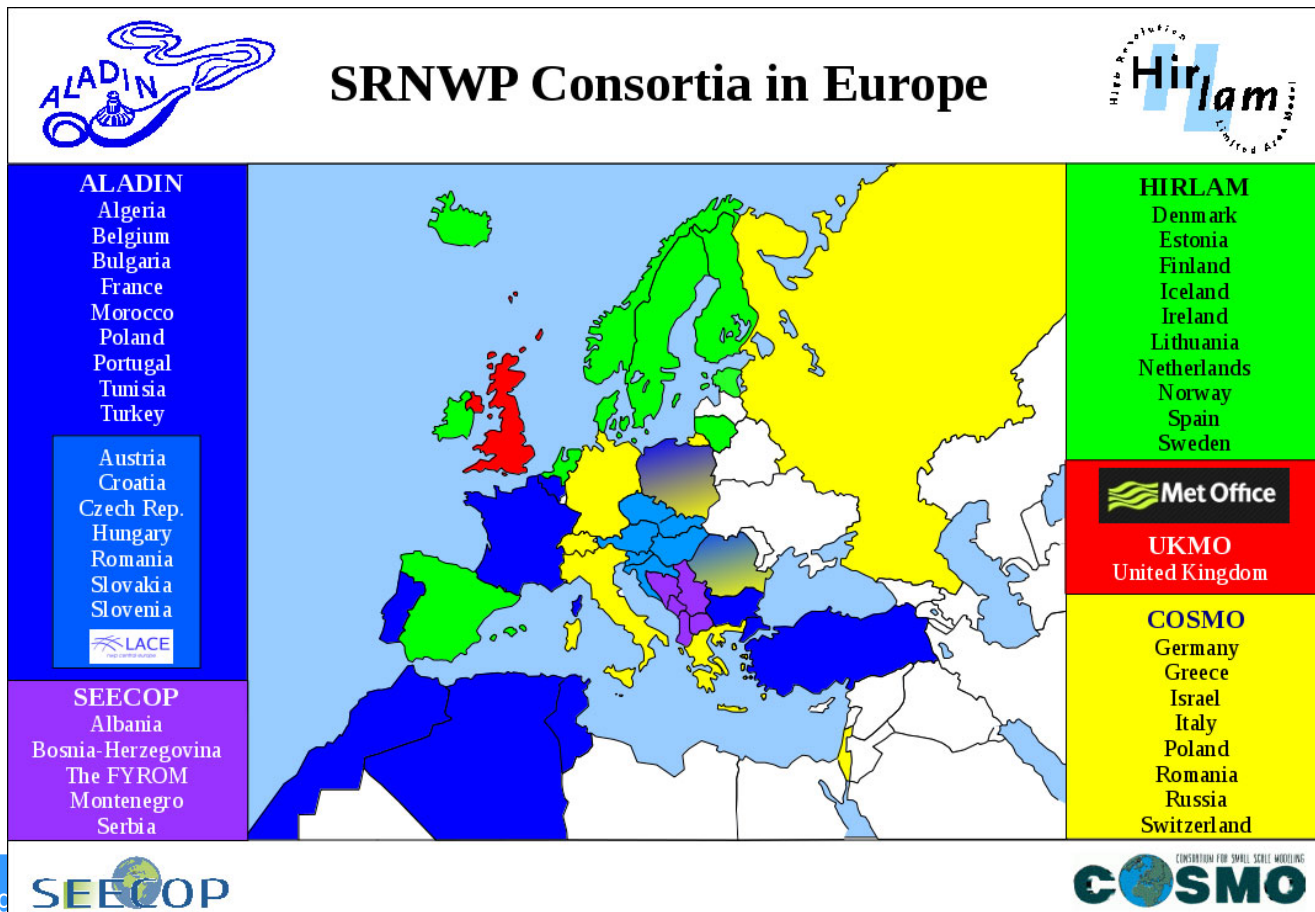
Forecasting Capability Area in the new phase

- New phase: 2019-2023
- Reorganization of the Forecasting Capability Area → Four larger programmes → contain modules
- C-SRNWP is a module in the „NWP Cooperation” Programme



C-SRNWP Module of EUMETNET

- Coordination of Short Range Numerical Weather Prediction in Europe
- 28 Member States, 2 Cooperating States (new Members: Germany, Ireland)
- Module Manager: 0.3 FTE
- Coordinating Member: Hungary, OMSZ



C-SRNWP Expert Teams

To foster communication between Limited Area NWP groups in Europe

8 C-SRNWP Topical Expert Teams (ETs)

- Data Assimilation (chair: Bruce Macpherson)
- **Diagnostics, validation and verification**
- **Dynamics and lateral boundary coupling**
- Link with applications (chair: Jeanette Onvlee)
- **Physical parameterisation (upper air)**
- Predictability and EPS (chair: Chiara Marsigli)
- Surface and soil processes (chair: Patrick Samuelsson)
- **System aspects**

Advisory Expert Team (AET):

- Heads of NWP consortia
- C-SRNWP Topical ET Chairs
- Observers: FPM, Post-processing MM, SRNWP-EPS MM

C-SRNWP highlights

Observation network design (support EUCOS, Obs-SET)

- Collect DFS (Degrees of Freedom For Signal) and FSO (Forecast Sensitivity to Observations) observation impact indicators from the SRNWP community → this provides useful complementary information to Observing System Experiments
- The above is important in order to have an influence on the priority of EUMETNET observation programmes/projects from an SRNWP perspective
- New Obs CA Management (UKMO) is conducting a series of information exchange events to shape the five year plan of the Studies Programme
 - Obs-SET meeting: 16-17 April 2019 → Focus on global NWP and climate applications
 - May 2019: Heads of Forecasters Meeting → nowcasting applications
 - June 2019: 1 day web-meeting to discuss the needs of SRNWP

C-SRNWP highlights

EWGLAM/SRNWP Annual Meeting

- 30 September – 3 October 2019, Sofia, Bulgaria
- Local host institute: Bulgarian Met Service
- EUMETNET support (6000 EUR)
- Special topic: crowdsourced observations in NWP
- First announcement by the beginning of May
- parallel sessions, side meetings

- **Invited experts** (4000 EUR/year) → proposed by ETs (in 2019: DA, APP, VERIF ET)
- **Support for meeting participation** (2000 EUR/year) → details to follow very soon

New element of C-SRNWP

Short Term Scientific Missions

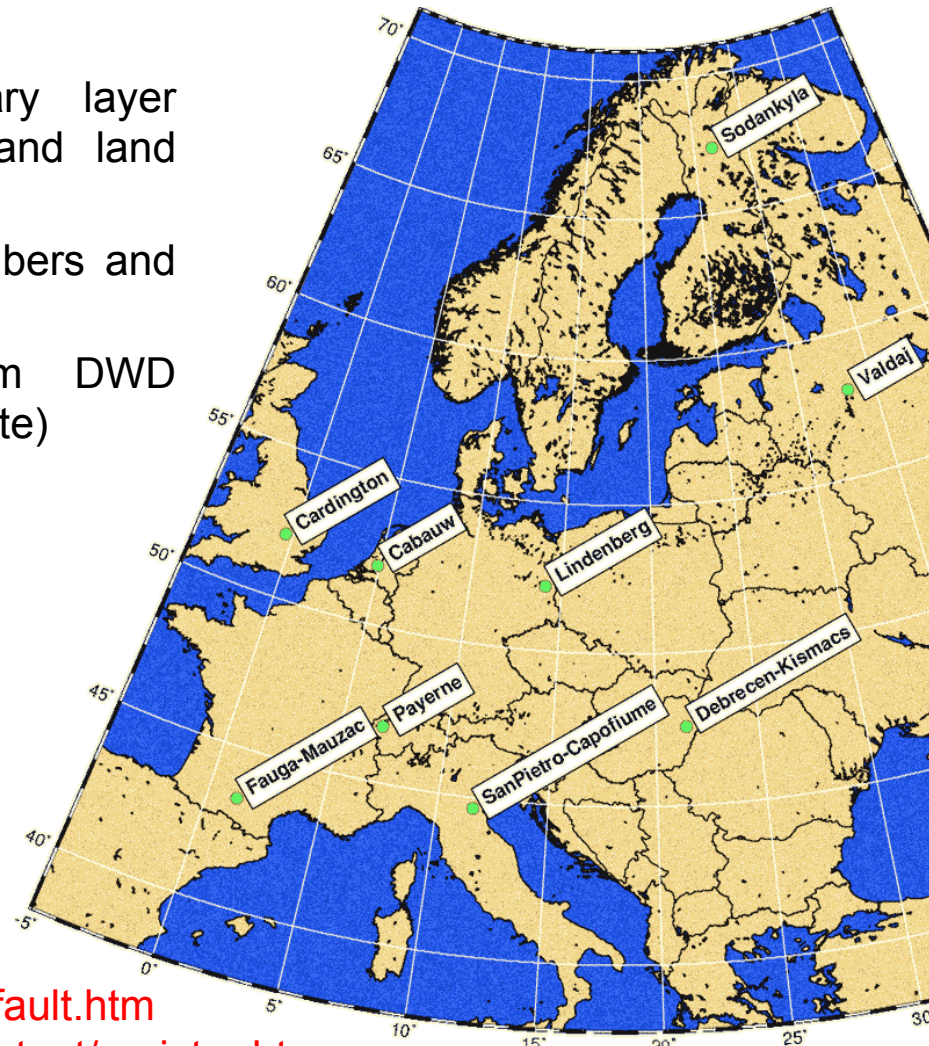
- NWP consortia have the funds to support internal exchange, however, this is usually not applicable for travel outside the consortia
- Yearly 1-2 missions (2000 EUR/year) will be funded to deal with cross-consortia issues (either technical or scientific).
- A typical stay would last 1-2 weeks and participation of young scientist is encouraged.
- Shared funding (EUMETNET/sending-host institute) is very welcome.

- Application form have been prepared, will be sent this week.
- Two collection dates per year: 1st March (in 2019: 1st May), 1st September
- Decision to be taken by AET

C-SRNWP highlights

SRNWP Data Pool of surface observations

- Database of surface and boundary layer observations → validation of PBL and land surface models
- Freely available for EUMETNET Members and collaborating universities
- Important in-kind contribution from DWD (collecting the data) and HNMS (web-site)
- Statistics for Feb 2018 – Jan 2019:
- 9 new users
- 741 monthly files downloaded



Website: <http://srnwp.cosmo-model.org/content/default.htm>

Account request: <http://srnwp.cosmo-model.org/content/register.htm>

C-SRNWP highlights

Global Lake Database

- Database of lake location and depth
- Important input for NWP models running a lake parameterization
- In the past ~10 years: work financed by different LAM consortia
- Financial support of EUMETNET since 2017: 8500 EUR/year (for maintenance and development) → in the new phase included in the C-SRNWP budget
- Work coordinated by FMI (Ekaterina Kurzeneva), persons involved: Olga Toptunova to be replaced by Anna Solomatnikova (Main Geophys. Observatory in St. Petersburg)
- Currently ongoing work: adding new lakes with careful quality check (~3000 new lakes)
- Future plans:
 - Update lake cover based on the GlobCover (or ESA CCI) database
 - Increase resolution: 1 km → 300 m
 - Produce new version of GLDB

C-SRNWP highlights

- **New EUMETNET Portal:**
 - Started in March 2018
 - Based on Confluence
 - ET mailing lists are currently moved here (finalized in 1-2 weeks)

- **C-SRNWP website (srnwp.met.hu):**
 - Model table was updated in autumn 2018 → in future: model table to be edited by each country
 - Renewal of the website in summer 2019

C-SRNWP highlights

EMS Annual Meeting – 9-13 September 2019, Copenhagen

- OSA Session: Challenges in High Resolution Short Range NWP at European level including forecaster-developer cooperation
- Conveners: Balazs Szintai, Chiara Marsigli, Emily Gleeson
- Session about EUMETNET, C-SRNWP and related activities
- Panel discussion planned on remote sensing observations in SRNWP (e.g. OPERA, E-GVAP)
- Session topics:
 - Past and future activities related to the C-SRNWP Module of EUMETNET and other EUMETNET activities with a relevance to SRNWP (OPERA, E-ABO, E-ASAP, E-PROFILE, E-SURFMAR and EUCOS)
 - Observation impact studies performed in order to assess the importance of different parts of the observing system for global and limited area NWP models
 - Development of the Global Lake Database (currently supported by EUMETNET) and its applications in NWP and climate models
 - The SRNWP Surface Data Pool, and its application for the verification of land surface models
 - Possible collaboration on developing post-processing systems for probabilistic predictions at European level
 - NWP user/developer interactions

Thank you for your attention!

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