Status of the EUMETNET C-SRNWP Programme

Balázs Szintai

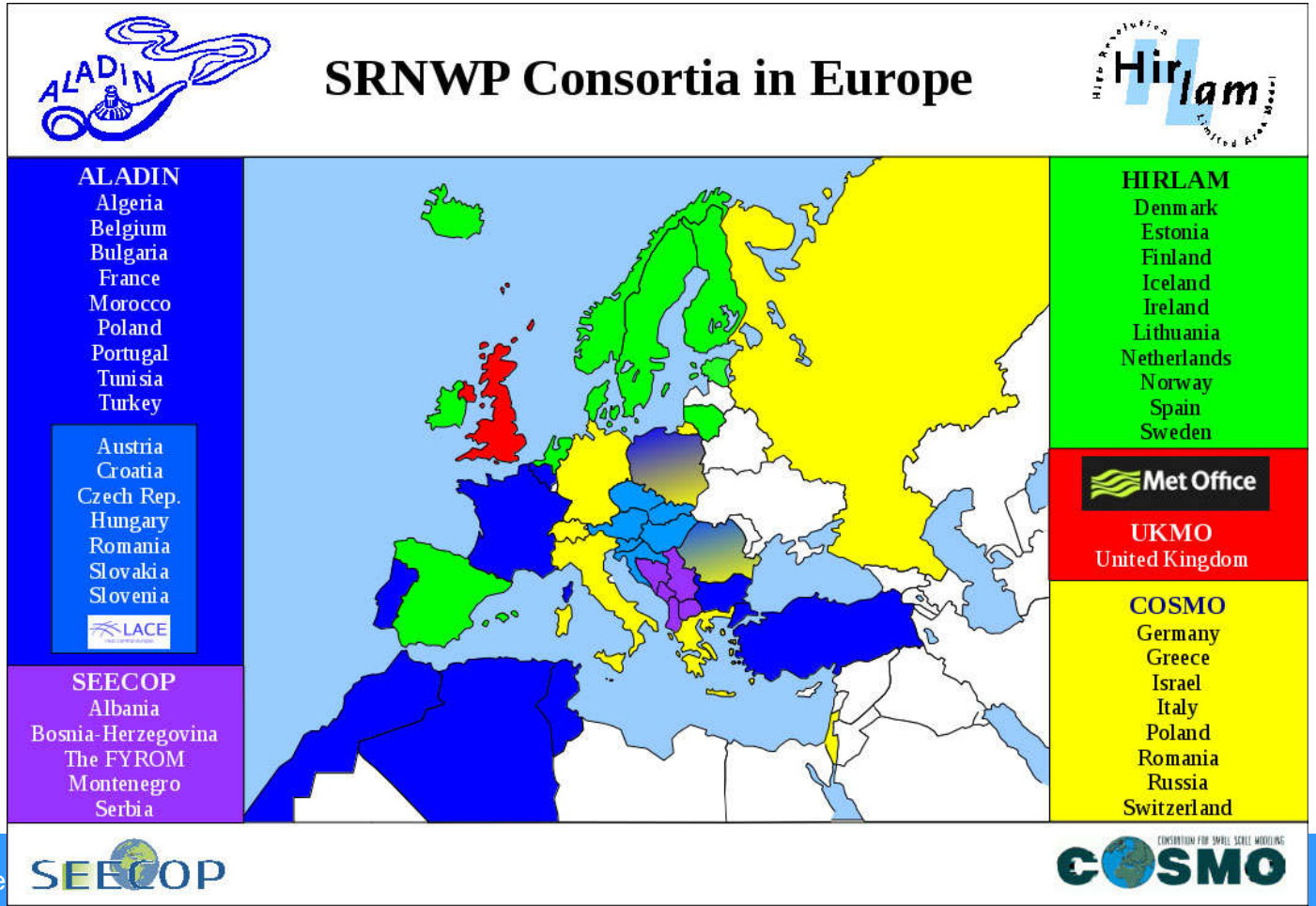
with inputs from experts of ALADIN, COSMO, HIRLAM, LACE, SEECOP, UKMO

Outline

- Support of the EUMETNET Observation Programmes
- SRNWP data pool
- Global Lake Database
- SEECOP
- EMS Annual Meeting
- C-SRNWP Expert Teams
- Website, mailing lists
- Future of C-SRNWP

C-SRNWP Programme of EUMETNET

- Coordination of Short Range Numerical Weather Prediction in Europe
- 27 Member States
- Current phase: 2013-2018
- Yearly budget of 35.000 EUR (0.3 FTE + 5000 EUR travel)
- Coordinating Member: Hungary, OMSZ



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

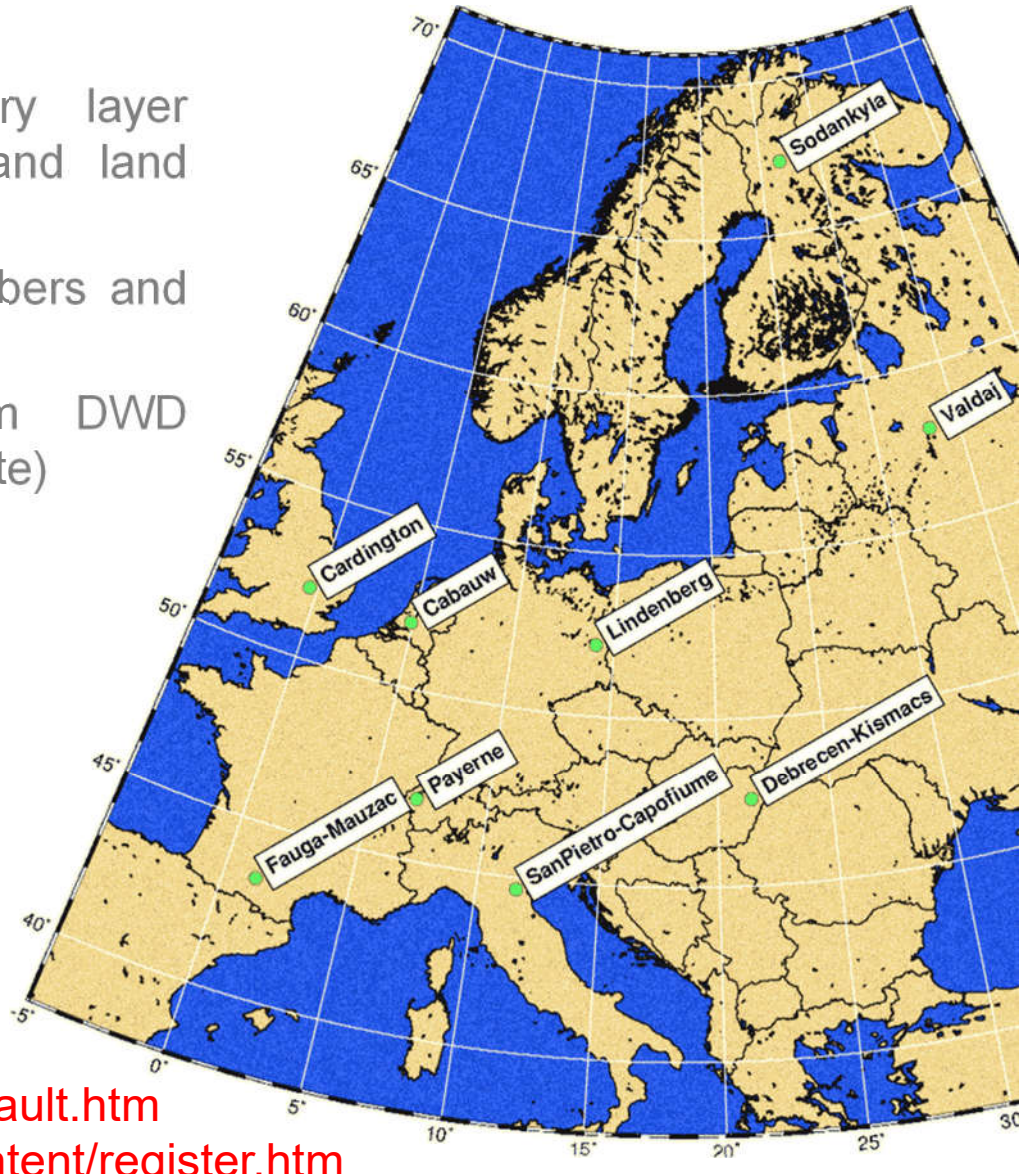
- Obs-SET meeting: April 2018
  - Ongoing studies:
    - Study 6.1: Dependence of Mode-S EHS derived wind observations on external upper air wind information (NWP model)
    - Study 1, case 3: Impact of E-AMDAR humidity observations (IFS-FSOI)
    - Study 1, case 4: Impact of E-PROFILE wind observations (IFS-FSOI)

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-Aug 2018:
- Six new users
- 286 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)

- Two presentations at EMS Annual Meeting 2018

- Currently ongoing work: adding new lakes with careful quality check (~3000 new lakes)

- Future plans:
  - Update lake cover based on the GLOBCOVER database [1 year plan]
  - Increase resolution: 1 km → 300 m [4 year plan]

C-SRNWP highlights

SEECOP

- South East European Consortium for Operational weather Prediction
- 5 South East Europen countries: Albania, Bosnia-Herzegovina, Macedonia, Montenegro, Serbia + Belarus
- Using NMMB (WRF) model
- Third meeting of SEECOP experts: 23 October 20017, Belgrade → C-SRNWP PM participated
- Workshop on using NMMB
- New members: Cyprus, Ukraine
- Data assimilation activities: EnKF installed on ECMWF computer (by Serbia)

C-SRNWP highlights

EMS Annual Meeting – 3-7 September 2018, Budapest, Hungary

- OSA1.10: Challenges in High Resolution Short Range NWP at European level including forecaster-developer cooperation
- Conveners: Balazs Szintai, Chiara Marsigli, Emily Gleeson
- Session related to EUMETNET, C-SRNWP and SRNWP-EPS-II
- 8 oral and 2 poster presentations covering:
  - Overview presentations of EUMETNET Programmes
  - Observation impact studies
  - Development of the Global Lake Database and its applications in NWP models
  - Forecaster-developer cooperation

C-SRNWP Expert Teams

8 C-SRNWP Expert Teams

- Data Assimilation (chair: Bruce Macpherson)
- Diagnostics, validation and verification (chair: Clive Wilson)
- 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

- In red: no ET chair; if interested, please contact Balázs Szintai

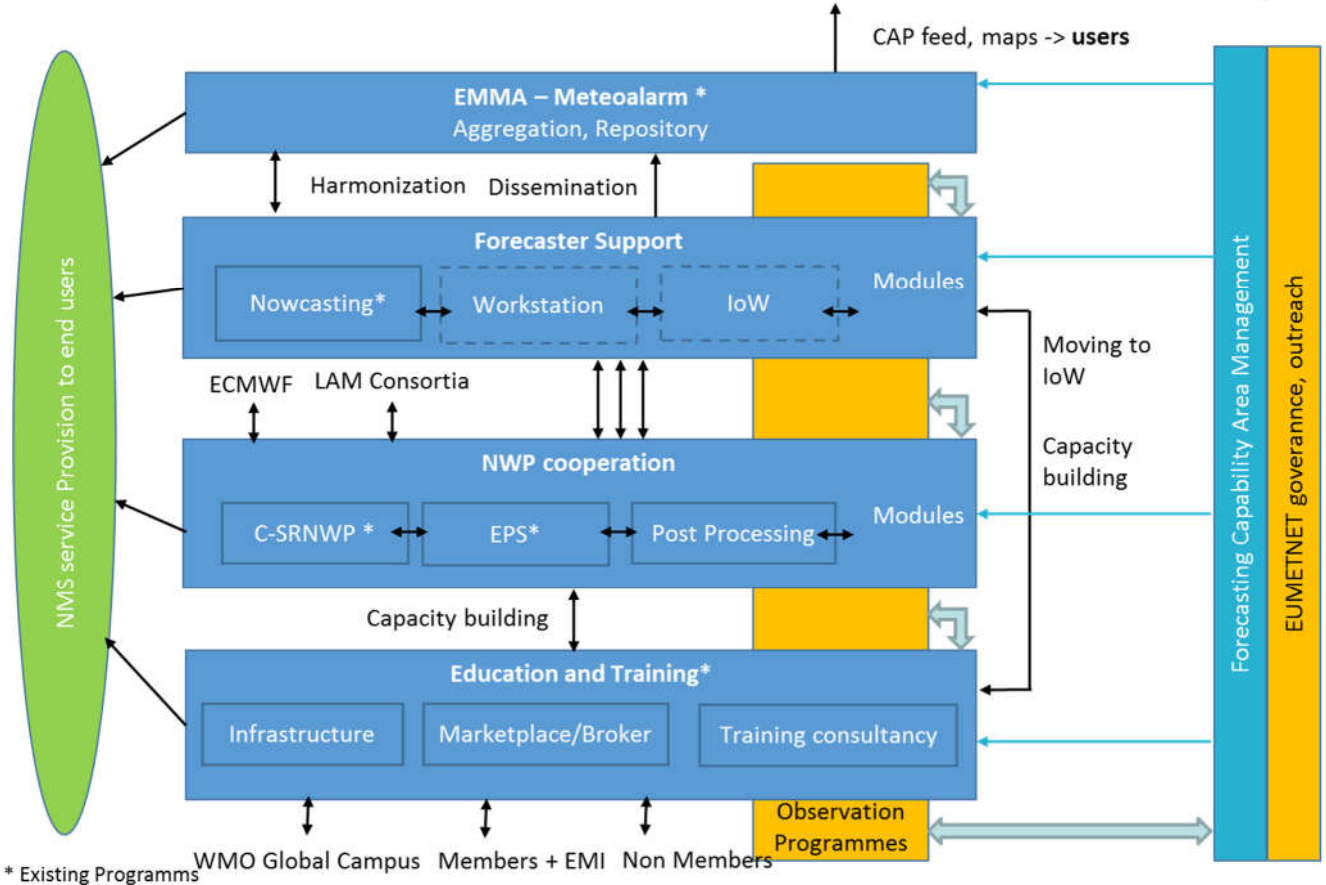
C-SRNWP highlights

- **New EUMETNET Portal:**
  - Started in March 2018
  - Based on Confluence
  - Material to be uploaded soon
  - ET mailing lists might be moved here

- **C-SRNWP website: Model table**
  - To be updated in autumn 2018
  - 59 deterministic LAMs
  - 12 LAM ensemble systems
  - srnwp.met.hu/C_SRNWP_project/Eumetnet_List.html
  - Proposal for the future: google-table embedded in the website ?

Future of Forecasting Capability Area / C-SRNWP

- Current EUMETNET phase ends in 2018
- New phase: 2019-2023
- Reorganization of the Forecasting Capability Area → Four larger programmes → contain modules
- C-SRNWP will be a module in the „NWP Cooperation" Programme



Future of C-SRNWP

Newly proposed C-SRNWP activities (for next phase):

- Short Term Scientific Missions: Yearly 1-2 missions (~2 k€/year) will be funded to deal with cross-consortia issues (either technical or scientific). NWP consortia have the funds to support internal exchange, however, this is usually not applicable for travel outside the consortia. A typical stay will last 1-4 weeks and participation of young scientist will be encouraged.
- EWGLAM invited speakers: a budget (~4 k€/year) will be devoted to fund the participation of relevant invited speakers from outside Europe at the EWGLAM/SRNWP annual meeting. This will help to keep a close contact with the NWP modelling community outside Europe (e.g. USA, Canada, Australia, Japan).
- Meeting participation for low GNI countries: For several countries with low GNI (even full members of EUMETNET) it is not possible to send a representative to the yearly EWGLAM/SRNWP meeting and thus it is difficult for them to build contacts with other NMSs in Europe in the field of SRNWP. A small budget (~2 k€/year) will be available to partly support this meeting participation for 2-3 persons.

Main results of C-SRNWP

C-SRNWP Programme (2013-2018):

- **EWGLAM Meeting** organized each year; starting 2018: 6000 EUR support from EUMETNET for local organizer
- **GLDB**: 8500 EUR/year for continuous maintenance and development
- **Surface Data Pool** is maintaned (in-kind contribution form Germany and Greece)
- **SEECOP**: recommendations formulated and fulfillment of these is followed
- **Obs-SET**: representing the interests of the LAM community
- **WMO**: C-SRNWP to help the initiation of new projects (e.g. SEE-MHEWS)

EUMETNET
EUROPEAN METEOROLOGICAL SERVICES NETWORK

Thank you for your attention!

Balázs Szintai

C-SRNWP Programme Manager

GIE/EIG EUMETNET

C-SRNWP Programme Manager
Hungarian Meteorological Service
Kitaibel Pál u. 1
Budapest, Hungary

Tel: + 36 1 3464705
Fax: + 36 1 3464669
Email: szintai.b@met.hu
Web: srnwp.met.hu

GIE EUMETNET Secretariat
c/o L'Institut Royal Météorologique de Belgique
Avenue Circulaire 3
1180 Bruxelles, Belgique

Tel: +32 (0)2 373 05 18
Fax: +32 (0)2 890 98 58
Email: info@eumetnet.eu
Web: www.eumetnet.eu