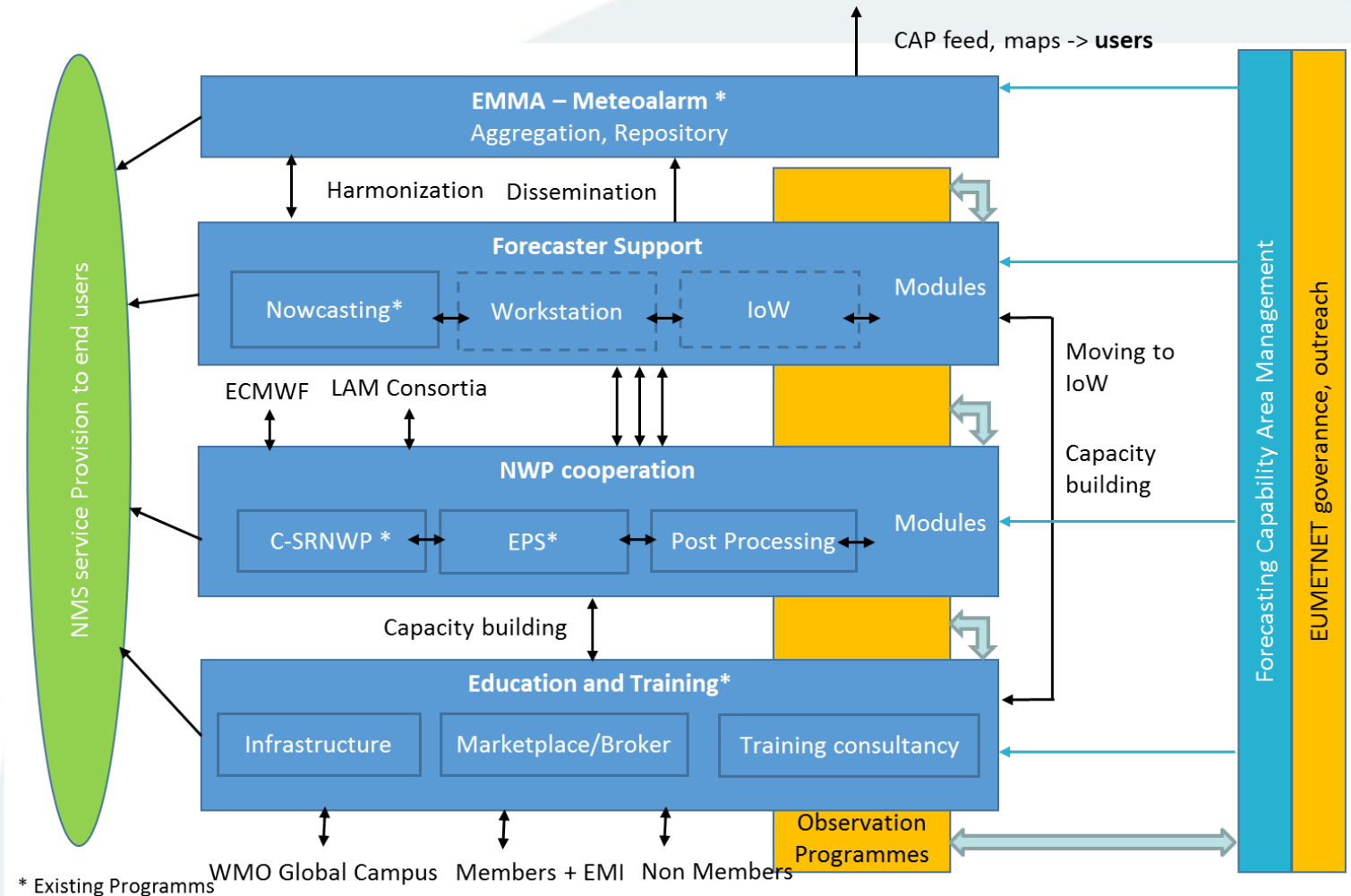# Outline

- 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

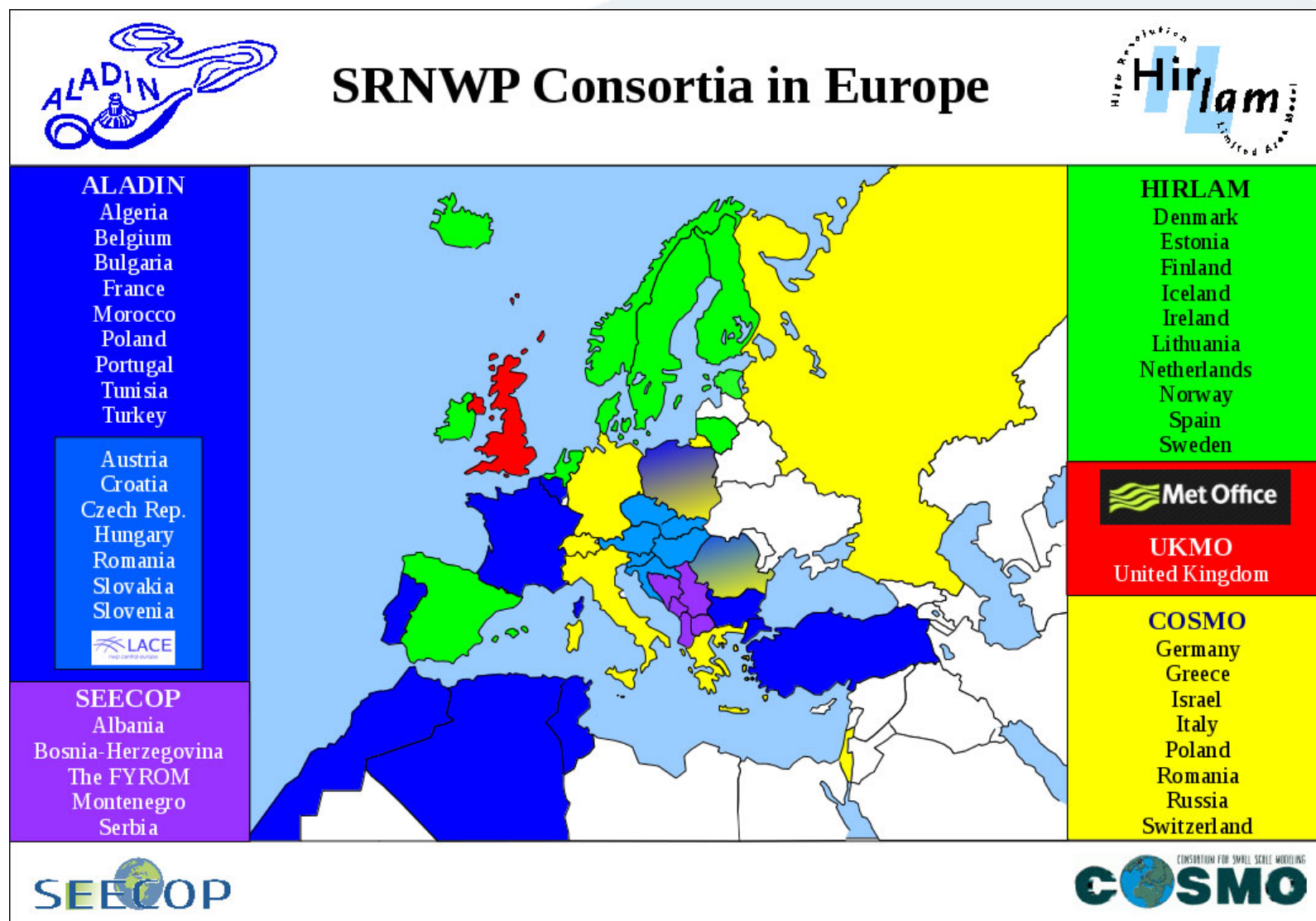- EMS Annual Meeting

- 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**

CAP feed, maps -> **users**

EMMA – Meteoalarm *
Aggregation, Repository

Harmonization   Dissemination

Forecaster Support

| Nowcasting* | Workstation | IoW | Modules |

ECMWF   LAM Consortia

Moving to IoW

Capacity building

NWP cooperation

| C-SRNWP * | EPS* | Post Processing | Modules |

Capacity building

Education and Training*

| Infrastructure | Marketplace/Broker | Training consultancy |

WMO Global Campus   Members + EMI   Non Members

NMS service Provision to end users

Observation Programmes

Forecasting Capability Area Management

EUMETNET goverannce, outreach

* Existing Programms

3

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**

SRNWP Consortia in Europe

ALADIN
Algeria
Belgium
Bulgaria
France
Morocco
Poland
Portugal
Tunisia
Turkey

Austria
Croatia
Czech Rep.
Hungary
Romania
Slovakia
Slovenia
LACE

SEECOP
Albania
Bosnia-Herzegovina
The FYROM
Montenegro
Serbia

HIRLAM
Denmark
Estonia
Finland
Iceland
Ireland
Lithuania
Netherlands
Norway
Spain
Sweden

Met Office
UKMO
United Kingdom

COSMO
Germany
Greece
Israel
Italy
Poland
Romania
Russia
Switzerland

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 (Marion Mittermaier)

- 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

Core Members

	ALADIN	COSMO	HIRLAM	MetOffice	RC LACE	SEECOP	ECMWF contact
Data assimilation and use of observations	Claude Fischer	Christoph Schraff	Roger Randriamampianina	**Bruce Macpherson**	Benedikt Strajnar	Bojan Kasic	Lars Isaksen
Diagnostics, validation and verification	Bogdan Bochenek	Flora Gofa	Bent Hansen Sass	**Marion Mittermaier**	Christoph Zingerle	Angel Marcev	Dave Richardson
Dynamics and lateral boundary coupling	Piet Termonia	Michael Baldauf	Sander Tijm	Ben Shipway	Petra Smolikova		Michail Diamantakis
Link with applications	Maria Monteiro	Anastasia Bundel	**Jeanette Onvlee**	Simon Jackson	Benedikt Bica	Bojan Cvetkovic	
Physical parameterisation (upper air)	Yann Seity	Matthias Raschendorfer	Sander Tijm	Mike Bush	Neva Pristov		Irina Sandu
Predictability and EPS	Geert Smet	**Chiara Marsigli**	Inger-Lise Frogner	Aurore Porson	Martin Bellus		Martin Leutbecher
Surface and soil processes (model and data assimilation)	Patrick Le Moigne	Jean-Marie Bettems	**Patrick Samuelsson**	Martin Best	Alena Trojakova		Gianpaolo Balsamo Patricia de Rosnay
System aspects	Ryad El Khatib	Massimo Milelli	Daniel Santos	Richard Gilham	Oldrich Spaniel		Jenny Rourke

Additional Members

	ALADIN	COSMO	HIRLAM	MetOffice	RC LACE	SRNWP-EPS Activity	Post-Processing Activity
Data assimilation and use of observations	Loik Berre, Maria Monteiro	Mihail Tsyrulnikov	Magnus Lindskog	David Simonin Lee Hawkness-Smith	Florian Meier, Michal Nestiak		
Diagnostics, validation and verification	Marek Jerczynski, Alexander Kann	Joanna Linkowska	Xiaohua Yang, Ulf Andrae, Carl Fortelius	Nigel Roberts	Christoph Wittmann		
Dynamics and lateral boundary coupling					Jozef Vivoda		
Link with applications		Flora Gofa	Per Unden	Mike Bush	Martina Tudor		Stéphane Vannitsem
Physical parameterisation (upper air)		Dmitrii Mironov Frederico Grazzini	Bent Hansen Sass		Jan Masek		
Predictability and EPS	Francois Bouttier, Alain Joly	André Walser, Christoph Gebhardt	Jan Barkmeijer	Anne Mccabe	Mihály Szücs	Alfons Callado Pallarés	
Surface and soil processes (model and data assimilation)	Rafiq Hamdi	Jürgen Helmert, Jan-Peter Schulz	Ekaterina Kurzeneva	Breogan Gomez	Jure Cedilnik, Balázs Szintai		
System aspects	Andrey Bogatchev	Uli Schaettler	Ulf Andrae, Xiaohua Yang		Martina Tudor		

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**

- **June 2019: 1 day web-meeting to discuss the needs of SRNWP**
    - Important weather phenomena and associated observation requirements identified
    - Fog ⬜ participate/support measurement campaigns
    - Deep convection ⬜ temperature, wind and humidity profiles (Mode-S, AMDAR-q, radiosonde descent data)
    - Investigate crowd-sourced obseravtions
    - Quality of OPERA products and „missing" countries (e.g. Greece, Italy)
    - Exploitation of the E-PROFILE ALC (Automatic Lidar and Ceilometer) network ⬜ development of extinction coefficient products to support data assimilation trials

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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**

- **Parallel sessions, side meetings**

  - Use of EUMETNET observations (E-ABO, OPERA) in LAM NWP models

  - External parameters for land surface models

- **Invited experts (4000 EUR/year) ⬚ proposed by ETs (in 2019: DA, APP, VERIF ET)**

- **Support for meeting participation (2000 EUR/year) ⬚ still available!**

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Short Term Scientific Missions

- New element in the C-SRNWP module

- 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 and sent to Contact Points and consortia PMs

- Two collection dates per year: 1st March, 1st September

- Decision to be taken by AET

- 2019 autumn: Martin Imrisek (SHMU) work on GNSS STD assimilation (ALADIN-LACE-HIRLAM) at KNMI for four weeks (shared funding with LACE)

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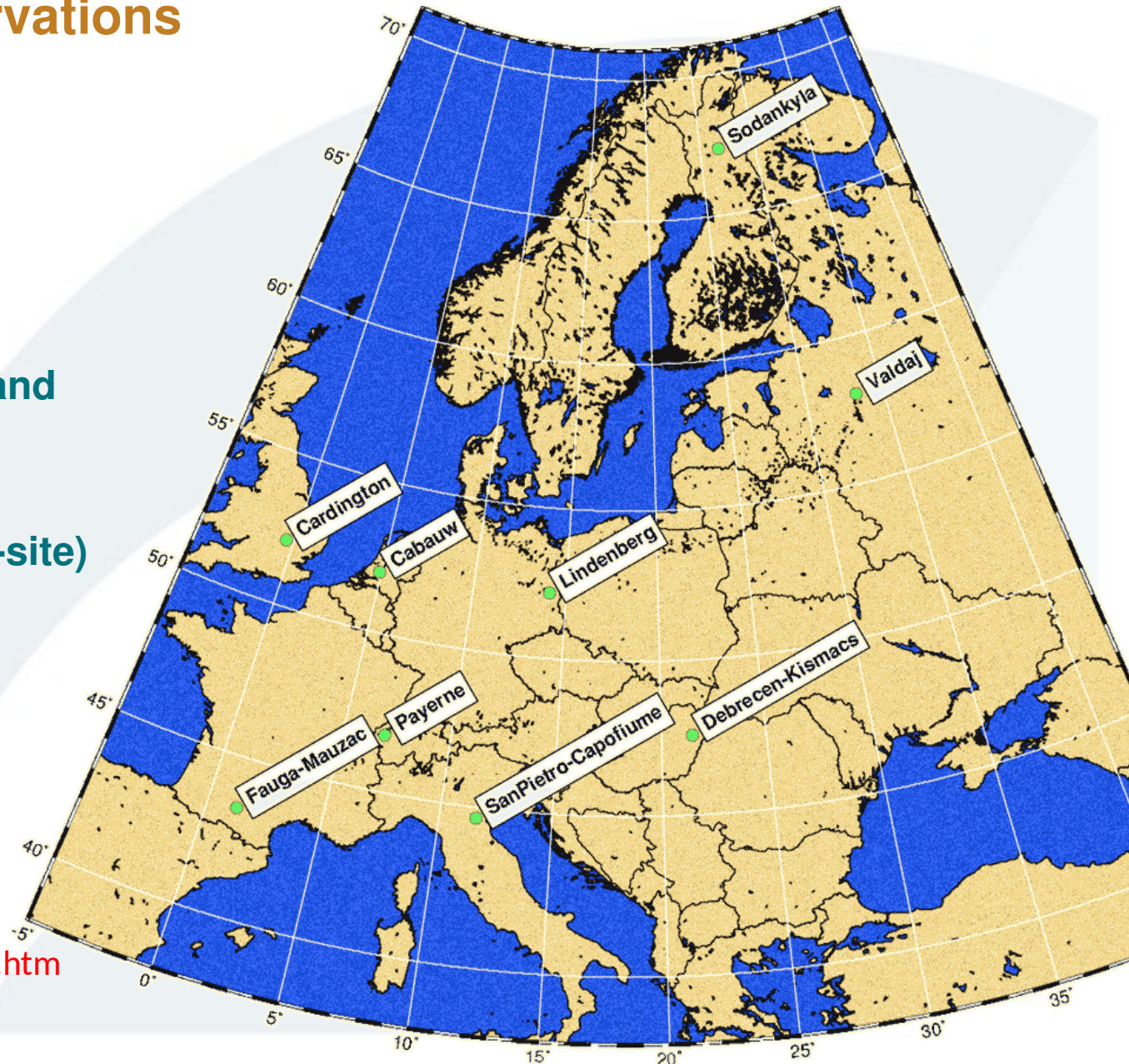# SRNWP Data Pool of surface observations

- **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 Sept 2018 – Aug 2019:

- **5 new users**

- **440 monthly files downloaded**

Website: http://srnwp.cosmo-model.org/content/default.htm
Account request: http://srnwp.cosmo-model.org/content/register.htm

9

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: Margarita Choulga (ECMWF) and 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**

EUMETNET
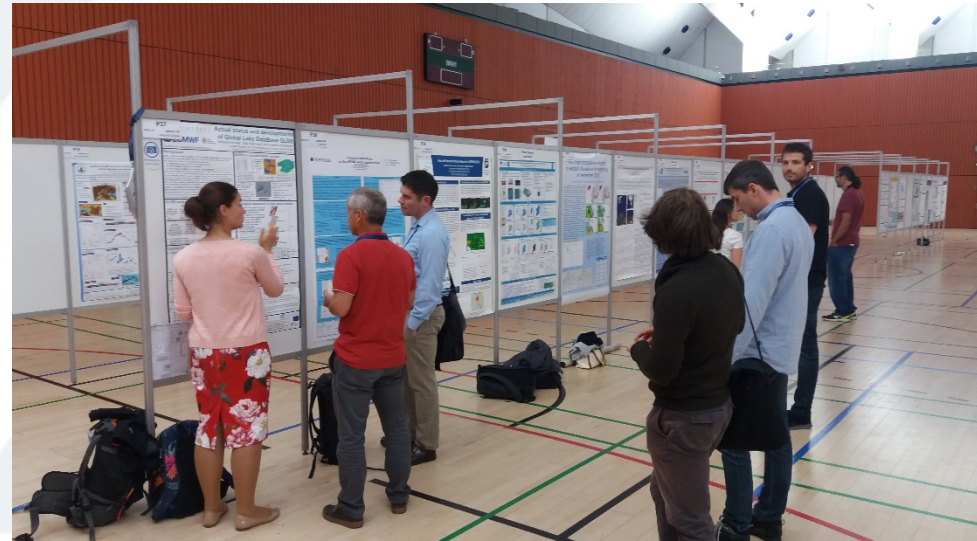EUROPEAN METEOROLOGICAL
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EUMETNET Portal

- **Started in March 2018**

- **Based on Confluence**

- **ET mailing lists were moved here (Forum functionality) in spring 2019 ⮕ let me know if you experience any difficulties**

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EMS Annual Meeting

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**

- **8 oral, 5 poster presentations**

Thank you for your attention!

CONTACT DETAILS

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