



RA-VI-17: Side event

EUMETNET Quality Monitoring Activities

Geneva, 07th February 2018

EUMETNET QM and Operations Manager
Tanja Kleinert (DWD)

31 EUMETNET Members

The National Met Services of:

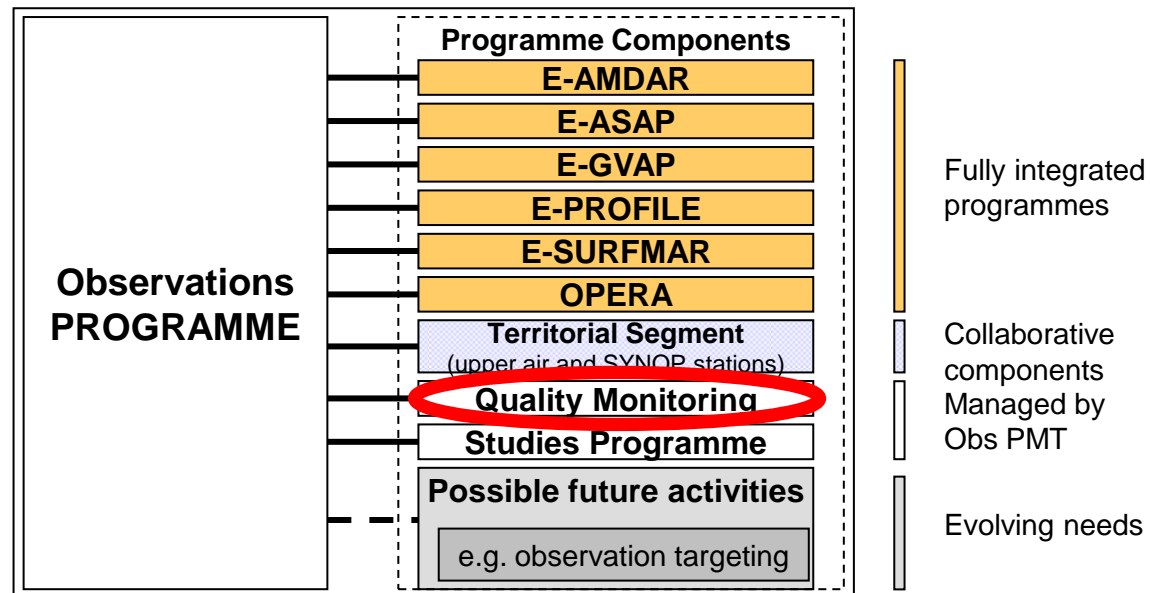
Austria	Latvia
Belgium	Luxemburg
Croatia	Montenegro
Cyprus	Netherlands
Czech Rep.	Malta
Denmark	Norway
Estonia	Poland
Finland	Portugal
France	Slovakia
Germany	Serbia
Greece	Slovenia
Hungary	Spain
Iceland	Sweden
Ireland	The FYROM
Italy	Switzerland
	United Kingdom



 Member  Cooperating NM(H)S

EUMETNET Observations Programme Management Tasks:

- Coordinating the evolution of the ground based EUMETNET Composite Observing System (EUCOS),
- **Monitoring the EUCOS performance,**
- Supporting Members' observation activities where possible and
- Organising a studies programme.



The current EUCOS networks

- European radiosonde stations
- Selected European synoptic weather stations
- European commercial AMDAR aircraft
- European ships of the Automated Shipboard Aerological Programme
- European moored buoys and drifting buoys
- European Voluntary Observing Ships
- European wind profilers, weather radars delivering vertical wind profiles, lidars/ceilometers
- European OPERA weather radars
- European GNSS sites



EUCOS Quality Monitoring

- One of the major tasks of the EUMETNET Observations Programme Management Team is to **monitor the performance of all EUCOS networks** against agreed EUCOS Performance Standards;
- EUCOS has set up a web-based EUCOS Quality Monitoring Portal (QMP) for all EUCOS networks as well as a WMO QMP for RBSN surface land stations and radiosonde stations of RA VI and GCOS stations globally;



Deutscher Wetterdienst
Wetter und Klima aus einer Hand



EUMETNET Observations Quality Monitoring



Welcome to the EUMETNET Observations Quality Monitoring

You have access to the following applications:

[EUCOS Quality Monitoring Portal](#)

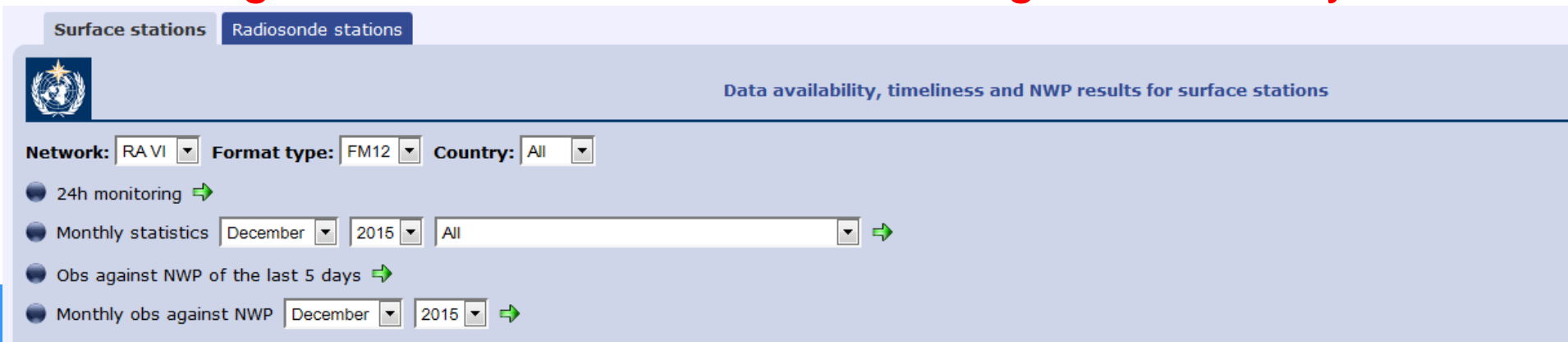
[WMO Quality Monitoring Portal](#)

[E-AMDAR Portal](#)

<https://eucos.dwd.de>

WMO Quality Monitoring Portal

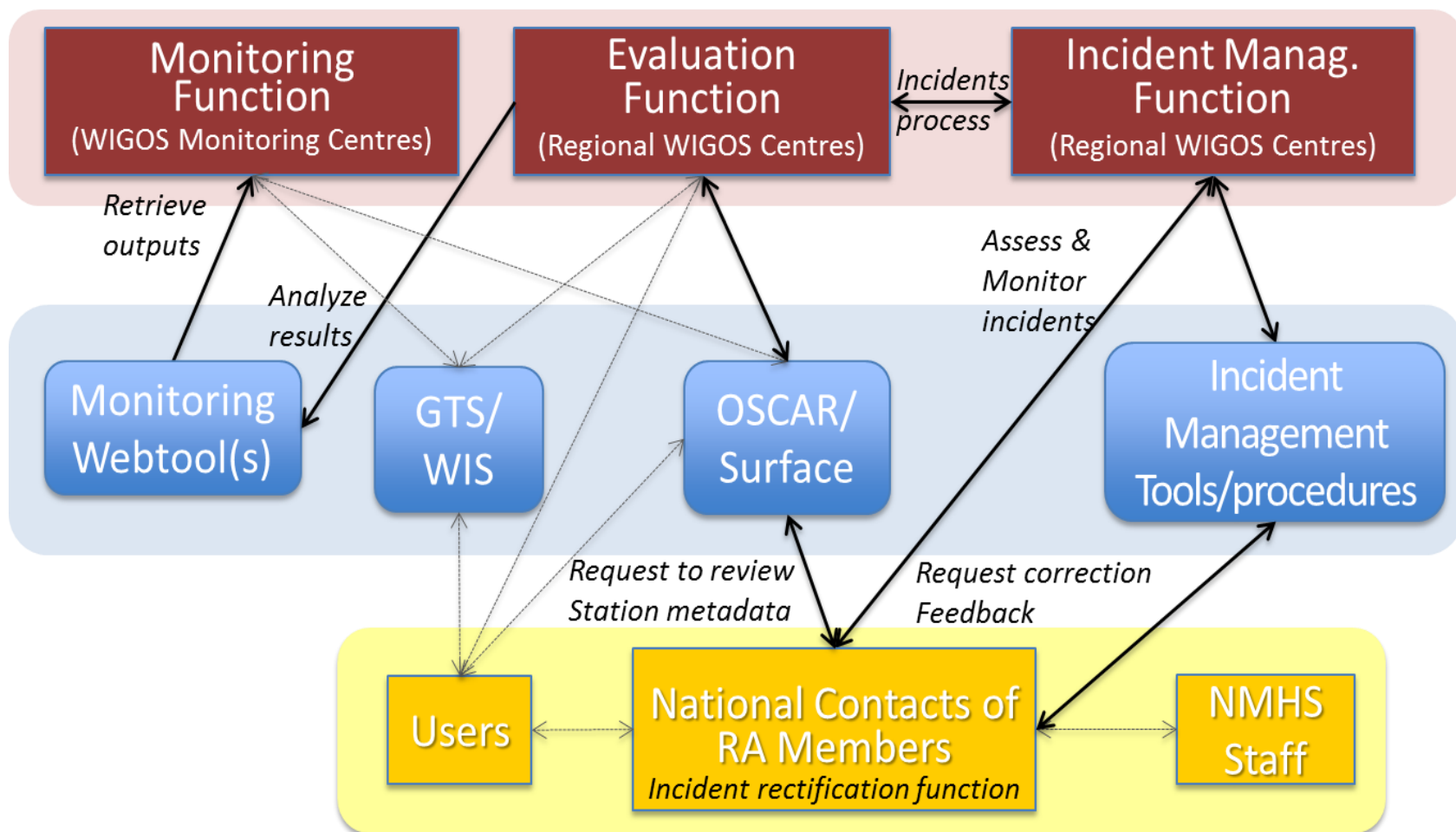
- Web-based automated quality monitoring of:
 - RA VI RBSN surface land stations, radiosonde stations
 - GCOS GSN surface land stations and GUAN radiosonde stations worldwide
- Display of QM statistics of TAC and BUFR messages archived in **DWD's database** regarding observation totals data availability and timeliness/latency
- Display of accuracy monitoring results based on **obs minus background differences of ECMWF's global NWP system**



The screenshot shows the WMO Quality Monitoring Portal interface. At the top, there are two tabs: "Surface stations" (selected) and "Radiosonde stations". Below the tabs is a header with the WMO logo on the left and the text "Data availability, timeliness and NWP results for surface stations" on the right. The main content area contains a search and filter form with the following elements:

- Network:** RA VI (dropdown)
- Format type:** FM12 (dropdown)
- Country:** All (dropdown)
- 24h monitoring** (radio button, selected) →
- Monthly statistics** (radio button, selected) | December (dropdown) | 2015 (dropdown) | All (dropdown) →
- Obs against NWP of the last 5 days** (radio button, selected) →
- Monthly obs against NWP** (radio button, selected) | December (dropdown) | 2015 (dropdown) →

WIGOS Data Quality Monitoring System (WDQMS)



EUMETNET's Quality Monitoring Process

Monitoring Function: operating the EUCOS and WMO QMP displaying monitoring statistics collected from DWD/ECMWF

Evaluation Function: the network performance and data quality is evaluated on a regular basis by checking the results of the EUCOS QMP

Incident Management Function:

- EUMETNET Members are contacted in case of incidents e.g. missing or erroneous data identified in the QMP
- Raised incident tickets, status updates, closure of tickets are well documented

Feedback to Members and data users: Quarterly EUMETNET Quality Monitoring Reports provide performance summaries per network and per Member

RA VI - RWC nutshell experiment on WDQMS

Background: TT-WIGOS proposed to run an experimental RWC in a nutshell on QM in order to test and demonstrate the practical implementation of the RWC concept

Experiment: the WMO QMP, displaying information on RA-VI RBSN SYNOP and radiosonde data, was used for the evaluation; EUMETNET Obs Programme Management Team provided training to staff member of FHI BH (Federal Hydro-meteorological Institute of Bosnia and Herzegovina) in Dec'16

Monitoring Task: FHI BH staff member carried out the monitoring tasks for: **Bulgaria, Bosnia and Herzegovina, Serbia, Turkey** with focus on availability ('silent stations'), timeliness and SYNOP stations with permanently high sea level pressure RMS errors

Benefits for EUMETNET Members

- Members are provided with fault reports in cases of outages or whenever EUCOS targets are exceeded as well with quarterly and annual network performance summaries
- Members can monitor the performance of their national stations by using the EUCOS QMP themselves
- Members are welcomed to add additional stations to the EUCOS QMP besides the defined EUCOS stations to monitor all national stations reporting to WIS/GTS.
- The EUCOS QMP helps to identify data transmission problems via GTS due to the fact that the QM statistics base on observations archived in DWD's and ECMWF's database.
- The EUCOS QMP offers a download functionality for further processing of the monitoring data on national level.

Tasks of RA-VI Regional WIGOS Centres

Monitoring Function: EUMETNET will operate and maintain the WMO QMP displaying monitoring statistics collected from DWD and ECMWF

Evaluation and Incident Management Function: EUMETNET will continue to evaluate the network performance and data quality for EUMETNET Members and will initiate the incident management procedure in case of ongoing issues including reporting about network performances on quarterly and annual basis

- The task to evaluate data being provided by non-EUMETNET Members as well as initiating the incident management procedure has to be taken over by other RA-VI Member(s)

Questions and comments?

Contact Details

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GIE/EIG EUMETNET

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