OPERA radar data

- Current status : still missing data for some countries (TH, VRAD, Nyquist velocity) => data not assimilated @ MF. Additional needs: metadata (radar sensitivity) and unfolded VRAD with specific QI
- OPERA 5 evolutions : volumic data concentration and QC redistribution currently done by MF and MetOffice will be taken over by DWD and ZAMG by 2021. DWD shall concentrate volumic data (Cumulus) and ZAMG shall apply central QC (proposed by KNMI) and redistribute the data for NWP (Nimbus)
- Importance of removal of non-meteorological echoes (satellite filter, Bropo) and beam blockage correction (BeamB) performed by ODC. OPERA 5 seems to rely on the fact that each country will send their « BEST » data making such treatments (more or less) obsolete (i.e. desactivation or replacement of toolbox modules)
- Importance of quality index : @ MF use of a threshold (< 0.7) => if computed differently then new tuning required
- Threat : possible regression in data quality with respect to the current status
- How to use the OUG to better explain our needs and concerns in terms of NWP community (e.g. be sure of a non-regression in data quality) ?

MODE-S data

- KNMI is concentrating MODE-S EHS data from various European countries (D, NL, DK, …) and processing them to produce bias corrected wind components in BUFR format (available in real time on ftp server => suitable for operational purposes)
- Other countries collect data from ADS-B antennas and SSR (UK, France) and process them internally (encoding and possibly own bias correction)
- How will E-ADD evolve to concentrate data from all European countries for redistribution ? European Meteorological ADD Centre (EMACC) ?
- Important needs:
  - Provide « raw » data (*ground speed, track angle, true airspeed, true heading, roll angle*) on top of bias corrected wind components to allow each NWP centre to compute wind components and perform its own bias correction
  - Identify data origin in BUFR files : MODE-S/ADS-B or MODE-S EHS
- Participation to the E-ABO user workshop 12-13 February 2020 at ECMWF