

**Minutes Outbreak Group "Baltic Earth"  
at MedCordex-Baltic Earth Workshop on Regional Climate System Modelling for the  
European Sea Regions, Palma de Mallorca, 14-16 March 2018**

Meeting chair and minutes: Matthias Gröger

Attendees: H. Baltaci, S. Brunnabend, C. Dieterich, C. Frauen, F. Janssen, M. Gröger, M. Reckermann, J. Staneva.

Discussion on basic recommended requirements about a coordinated baseline simulation

- Discussion on technical issues for coordinated experiments: a coupling time step should be recommended with a least 1 hourly
- As atmospheric forcing ERA-interim and UERRA data sets were identified. SMHI can provide UERRA data set to nearly real time. ERA5 is still not available. Problematic with UERRA is that it has a high resolution which in fact would mean to downscale an already high resolution product with no gain in resolution
- lateral boundary conditions (ocean). ORA S4 should be recommended.
- model output variables: For the atmosphere part CORDEX protocol should be recommended (see attachment from the MedCordex group provided by Markus)
- for the ocean part we should follow roughly cmip conventions, e.g. variable names and output frequency (see attachment from the MedCordex group provided by Markus)
- monthly output for 3D variables (e.g. T, S, velocities)
- daily mean output: SSS, SST, MLD etc, (need to define a common criterion to define MLD)
- hourly output: SSH
- sea ice: sea ice fraction, sea ice thickness. output frequency daily (is that correct???)
- atmospheric resolution should be recommended with ~12 km
- oceanic resolution recommended with ~3.5 km (at least it said so in Ha's presentation)

Further discussion is needed about:

Scientific question to be addressed for the ocean. This is often a critical point in model intercomparison studies. So far discussed were:

1. MLD dynamics
2. Upwelling
3. SSH dynamics
4. transports

Transports should be analyzed online during simulation and outputted daily or higher for certain stations and/or transects.

- time series for T & S should outputted daily or higher for certain stations.
- The sections and station need further discussion for specification.
- The discussion should be done in the Baltic Earth forum. Marcus will help with it.

DMI has setup a server for data storage which is already used by activity2 "coupled model intercomparison for future scenarios"). This might be an option also for Coordinated Experiments data output.

We will have special outbreak meeting during the Baltic Earth Conference in Helsingor, 11-15 June 2018. There, the final design of minimum requirements should be discussed and decided. A strategic scientific question should be discussed and formulated.

Activity: 2 “coupled model intercomparison for future scenarios”. Future scenarios are available only from AWI, SMHI MPI, and DMI. Only SMHI was attending. HZG has scenarios for a wave model. SMHI will provide further information about how to take part. First step will be a multi model assessment of scenarios for SSH. Further instruction will be send out to the participating institutes at the end of this week.