2<sup>nd</sup> Meeting of the PostBALTEX Working Group



Uppsala, 30 and 31 May 2012

# Minutes



**Attendants (left to right):** Eduardo Zorita, Markus Meier, Thomas Neumann, Andreas Lehmann (vice chair), Benjamin Smith, Piia Post, Chantal Donnelly, Carin Nilsson, Anna Rutgersson (chair), Marcus Reckermann (ex officio), Zita Gasiunaite

Chairs of the Meeting: Anna Rutgersson and Andreas Lehmann Notes: Marcus Reckermann

## Document to be delivered

The type of document to be submitted to the BALTEX Science Steering Group (BSSG) was discussed. It was agreed that an outline of the new PostBALTEX programme will be presented to the BSSG. After approval and further mandate by the BSSG, the draft programme will be further elaborated. The scientific framework will be based on available and future assessments of existing research from which research gaps will be identified and grand challenges will be defined. Thus, there will be no long-term (10 years) science plan, but a number of grand challenges which will be assessed and their progress evaluated over a period of 3-5 years. After this period, a re-evaluation will be performed, and new challenges will be identified and defined. Research challenges will be published as white paper or peer reviewed publications to help to dissipate and promote the new PostBALTEX programme in the scientific and stakeholder communities. Thus, in a time frame of 3-5 years the research needs will be re-assessed by PostBALTEX and new challenges will be defined. The outline of the new PostBALTEX programme shall be submitted to the BSSG prior to the BSSG meeting #28 in Tallinn, 5 September 2012.

# **Outline of the PostBALTEX Programme**

## Vision

# Achieve an improved Earth system understanding of the Baltic Sea region

The term "region" is proposed to get a less defined definition of the area; this may be important in some context, e.g. in stakeholder relations. The region can be defined more specifically (e.g. as catchment basin) as appropriate for specific purposes, e.g. for modelling or data analysis.

#### **Definitions and roles**

- An international PostBALTEX secretariat is mandatory
- PostBALTEX is a regional scientific network to bridge the gap between policy needs and scientific knowledge. Subject of research is the regional Earth system of the Baltic Sea region, encompassing the atmosphere, the land surface including rivers and lakes, the Baltic Sea, and the human sphere as well as fluxes of water, energy and matter between these compartments.
- PostBALTEX will focus on understanding the Earth System in the Baltic Sea region. The new approach of PostBALTEX is a continuous effort to identify key scientific questions.
- Available and future assessments of existing research shall be used to identify research gaps and questions on a regular basis, and to define grand challenges for Baltic Sea regional Earth system research over the course of 3-5 years. Research challenges will be identified and defined actively by PostBALTEX probably through dedicated working groups.

• Communication and dialogue with stakeholders (e.g. politics and management organisations) in early stages is recommended to arrive at research which is relevant for society.

# **Grand challenges**

A set of grand challenges in Baltic Sea Earth system research to be tackled in the next 3-5 years should be identified. Each grand challenge could have several specific research questions.

As example, the group will present a set of illustrative grand challenges to the BSSG. Each grand challenge will be sketched on ½ to 1 page in the recommendation report. Names in parenthesis are experts which are asked to draft this short text.

Grand challenges:

- Salinity dynamics in the Baltic Sea (Andreas Lehmann)
- Land-Sea biogeochemical feedbacks in the Baltic Sea region (Ben Smith)
- Understanding the frequency and strength of extreme events (Anna Rutgersson)
- Understanding sea level dynamics using new technologies (remote sensing) (Birgit Hünicke)
- Anthropogenic changes and how the Earth system of the Baltic Sea region is affected (Chantal Donnelly)

Further grand challenges should be defined by the PostBALTEX SSG and dedicated Working Groups.

# Networking, education and outreach

- Conferences of the BALTEX style should be pursued in the next phase. Changes are suggested:
  - Conferences could dedicate more time for open discussions (as part of the continuous process to define new research problems.
  - o PostBALTEX sessions at other relevant conferences
  - Shorter PostBALTEX workshops on specific topics
  - Have large PostBALTEX Conference every 2 or 4 years, avoiding time conflict with the BSSC conferences (avoid two large conferences on Baltic Sea research in the same year); but contribute to BSSC conference by dedicated sessions
  - Have dedicated stakeholder involvement in conferences and discussions
  - Presentations/sessions at international worldwide conferences (EGU, AGU etc. to showcase science in the Baltic Sea region
- Summer schools
- Take advantage of social networks in the internet
- General dissemination and outreach via newsletter and other regular publications for the scientific community but also to the general public
- Communication with climate services and environmental agencies

## Monitoring and data management

POSTBALTEX should stress the need for data monitoring and data management. It is mandatory to have a working group on data mangement

- Availability and facilitation of data access; identify relevant distributed databases and provide access to all databases
- Establishment of a meta database for the Baltic Sea Region;
- Identification of missing data (gaps) for PostBALTEX research
- Establishment or continuation of a Working Group on data management to make a inventory of available data and gaps, keeping in mind the grand challenges, and work towards the above issues

Furthermore, the need for an observation system resp. scientific monitoring was emphasized. An inventory of monitoring needs for PostBALTEX research should be done; the outcome could be a peer reviewed scientific paper.

## International embedment of the programme

Current options for an embedment in international overarching global change programmes were shown in a presentation by MR.

Currently, BALTEX is embedded in GEWEX, which has had a strong emphasis on BALTEX Phase I research: the strictly physical side of the Earth system, with the water and energy cycle in the focus. This will presumably be the case also in the next GEWEX Phase.

Future Earth is the envisaged grand new umbrella of global change research which has been organized under the Earth System Science Projects ESSP, integrating the projects running under Diversitas, IGBP and IHDP. WMO, WCRP and consequently also GEWEX, do not participate directly but have observer status.

Although the future directions of PostBALTEX seem to go into the directions of Future Earth (emphasizing an integrated and interdisciplinary Earth System approach), there are also arguments to apply for a new embedment as RHP in GEWEX, as some important aspects of the Earth system are treated there prominently, and there is a strong traditional link between BALTEX and GEWEX.

It was decided to leave this open and further investigate potential overlaps in research topics and grand challenges; a "membership" in both programmes may be possible, but it was not clear whether this would be desirable. The future structure and regionalization of Future Earth is vague at the moment and should be further investigated.

#### New Name

This was discussed openly, but it was decided to postpone the decision on a recommended new name. There are some arguments for keeping the name BALTEX (or keeping it with

minor re-lettering and meaning), before all the introduced brand mark in the research community. But there were more and stronger arguments for a new name, which would symbolize a new start, with new emphasis, building on the BALTEX network and infrastructure.

Several possibilities were named but acronyms were not favoured. Rather, the agreement was that a suiting brand name was better. Below the outcome of a preliminary vote.

Baltic Future (7 votes) Baltic Earth (2) Balt Link (0) Balt Net (0) Balt Scope (0) Baltic Prospect (0)

Catchphrase below new name: Adressing scientific grand challenges in the Baltic Sea region

#### Finalization of the recommendation document

Document ca. 10 pages Skeleton document to be distributed before mid-summer (by 20 June) All contributions (grand challenges) due by 31 July Final draft by 15 August to be distributed to BSSG To be officially presented at BSSG meeting on 5 September 2012 in Tallinn.

Minutes draft Marcus Reckermann, 1 June 2012 Approved by meeting participants, 6 June 2012