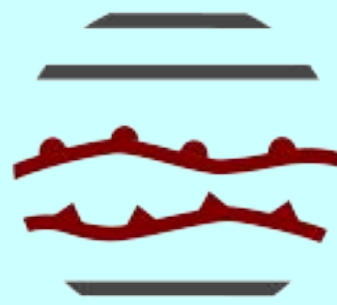


ACCORD



A Consortium for CONvection-scale modelling
Research and Development

PM slides for Assembly-6

Claude FISCHER, ACCORD/PM
6th Assembly meeting, online, 26 June 2023

nice picture to get started ...

ACC  RD

A Consortium for CO_nvection-scale modelling

3rd ACCORD All Staff Workshop

27-31 March 2023

Tallinn, Estonia



REPUBLIC OF ESTONIA
ENVIRONMENT AGENCY



RD

scale modelling

3. Management positions

- **MG new members:**
 - **DA: Benedikt Strajnar from ARSO**
 - **Physics: Metodija Shapkalijevski from SMHI**
- **Support Team:**
 - **CSS: Anne-Lise Dhomps will officially start on 1 Sept 2023**

Management Group

Chaired by PM



Area Leaders



Dynamics:
Ludovic Auger (Fr)



Surface: **Patrick Samuelsson (Se)**



Meteorological QA:
Carl Fortelius (Fi)



E.P.S.: **Henrik Feddersen (Dk)**



System: **Daniel Santos (Dk)**



Data Assimilation:
Benedikt Strajnar (Si)



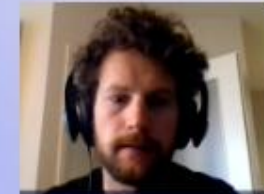
Physics: **Metodija Shapkalijevski (Se)**



Transversal activities:
Piet Termonia & Daan Degrauwe (Be)



Integration Leader
Alexandre Mary (Fr)



CSC Leaders



CSC Arome:
Eric Bazile (Fr)



CSC Alaro:
Martina Tudor (Hr)



CSC Harmonie-Arome:
Jeanette Onvlee (NL)

4. Approval of cumulated manpower

- the Assembly is invited to approve the 2022 realized manpower figures (page 2 of prep' doc)
- upon approval, we will use the new repartitioning of manpower for voting, respectively [2021-2022] & [2018-2022] in accordance with the relevant MoU-1 items (page 3 of prep' doc)

5a. Outcomes of STAC-5: follow-on of white paper

- **Testing and validation**
 - based on the already made progress on modernizing the working practices, we will explore new possibilities how to increase common validation
 - for the time being, the “DAVAI-contributors” team remains a cornerstone of what we try to build
- **O2R:**
 - a procedure has been outlined i/o to organize user feedback at consortium-level, with the help of an O2R-WG
 - a new role: the “user representatives”
 - this proposal implies additional tasks for the MG and for R&D teams
 - the MG will review this process (we will learn from it)
- **Documentation**
 - a dedicated person, the Documentation Officer (DO), will be needed i/o to seriously implement documentation at consortium-level
- **Any of these three pillars, and the suggested organization, will imply a change of culture across the ACCORD teams**

5a. Outcomes of STAC-5: f/o of white paper recommendations by STAC (short version)

- about the working practices, including testing:
 - STAC welcomes the steady progress on modernizing the working practices, (...) STAC reminds the importance of forming the “DAVAI-developer” team as agreed in the end of 2022, and recommends the Members to staff this team.
- about the organization of user feedback:
 - STAC (...) supports the proposal on how to organize user feedback at ACCORD-level. STAC (...) recommends to approve the ToRs of the “user representatives” and to task the PM to take the appropriate steps to form this group.
 - STAC recommends the Assembly Members to appropriately staff the activity on O2R and the associated R2O tasks, (...)
- about documentation:
 - STAC (...) recommends the Assembly Members to (...) facilitate (the) change of culture within each Institute.
 - STAC supports (...) the proposal that an additional position in the Support Team could be defined for this purpose (of improving documentation).
 - STAC recommends to approve the ToRs of the “Documentation Officer”.

5a. Outcomes of STAC-5: f/o of white paper decisions proposed to the Assembly

- (confirm your support and encouragement)
- to approve the ToR of the user representatives
- to approve the ToR and the conditions for opening the position of the Documentation Officer (DO)
- to task the PM to organize the next steps:
 - proceed with the modernization of working practices including how to improve the testing of new code versions at ACCORD level
 - organize the user feedback activity
 - organize the Call for the DO

5b. Outcomes of STAC-5: ML for NWP

The outcome of the WG-ML, of STAC-5 and the rapid evolution of this field around us

- The WG-ML produced a *portfolio* with suggested topics for studying ML tools within components of our “traditional”, physical-based NWP models
- The WG-ML had some wider discussions on the relevance and definition of appropriate training datasets and the consequences of recently published material on data-driven forecast models (“emulators”)
- In relation to these recent results, ECMWF redefined its own priorities and staffing, and ways to initiate collaborations (in the context of Destination Earth -DE_371-, in the context of a pilot project approach etc.)
- **STAC-5 and the formulation of high-level questions (in short):**
 - How can we (ACCORD) use our knowledge or our codes to engage in studies ?
 - How to prioritize between studying AI/ML tools for components of the forecast system and/or for emulating a full data-driven forecast model ?
 - How can we increase our knowledge on AI/ML tools, and/or engage more (...) with academia or with private sector big-tech companies ?
 - Should ACCORD engage more into collaboration with ECMWF ?
 - AI/ML tools require very large volumes of training datasets. How should ACCORD be organized to produce and handle these huge volumes ?
 - How to find additional resources to engage into such studies ?

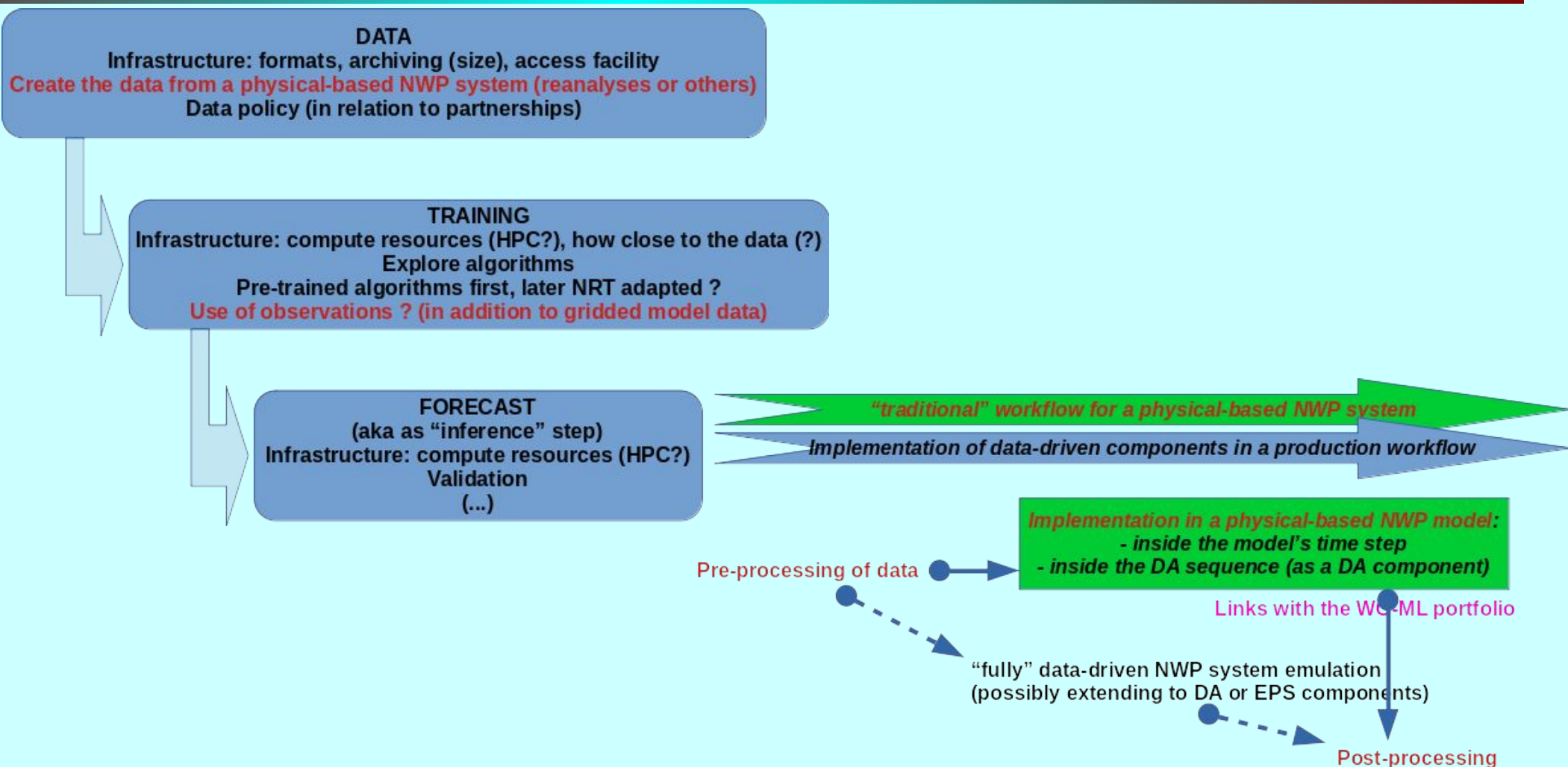
5b. Outcomes of STAC-5: ML for NWP

Recommendations by STAC (short version)

- **ACCORD Members should be proactive (in this rapidly evolving field)**
- **the high-level questions are relevant for ACCORD**
- **as a start,**
 - ACCORD should confirm or define what are the strengths that it must maintain in order to provide reference numerical tools for meeting strategic user requirements by its Members
 - it needs as a high priority to have a (training) data set. (...) we recommend exploring ways and means of doing this collectively
 - collaborate with ECMWF
- **continue to use the WG-ML for information exchange**

5b. Outcomes of STAC-5: ML for NWP

A schematic overview (a bit beyond the borders of ACCORD)



Define what you want to do ... be able to describe your problem
... discuss with an AI expert ... start with "simple" problems

Links with the WG-ML portfolio

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5b. Outcomes of STAC-5: ML for NWP

decisions proposed to the Assembly

- (encourage Members to be proactive, to join forces, to look for opportunities and collaborations)
- to task the PM to organize the preparation of a strategic approach on ML for NWP in ACCORD, taking into account both the urgency and the rapid evolution of this topic:
 - by keeping a close contact with the Bureau in order to address any relevant priority issue (such as on collaborations, resources, policy matters)
 - by accelerating the joint STAC+MG work on addressing the high-level questions and further elaborate on the formulated recommendations
 - by formulating with MG first proposals of tasks in the ACCORD work plans

5c. Outcomes of STAC-5: preparation of the 2026-2030 strategy - procedure and timeline

- STAC+MG to address the high-level questions (cf prep' doc pp 9-10), propose choices or answers, provide guidelines => **for STAC-6 on 25-26 October 2023**
- **Assembly-7 on 4 December**: assess the outcome on the high-level questions and details on the next steps
- Task Teams (TT) are formed and work during the winter, using the outcome of STAC+MG as strong guidance. The material from the TT is an input for the strategy workshop => **TT output ready for April'24**
- **the strategy workshop meets in spring'24 (May?)**, participation is on invitation only. The outcome of the workshop is an input for the strategy drafting team
- **the spring'24 Assembly** is presented with a progress report and the organization of the (final) drafting steps
- the strategy drafting team works during the summer'24 => **draft strategy document ready for October'24**, to serve as a preparatory document for STAC in the autumn'24
- **the end of 2024 Assembly** could then approve the final version of the strategy

5c. Outcomes of STAC-5: pr. of 26/30 strategy recommendations by STAC

- STAC agrees that a reviewing of progress based on the MG-roadmap should be made under the responsibility of PM+MG.
- STAC also agrees that the start of the preparation for the next phase strategy of ACCORD could take place in 2023.
- STAC recommends to adopt a two stage process for the strategy preparation:
 - to first address the high-level questions, as formulated during the STAC-5 meeting, in a joint PM/MG+STAC effort,
 - to then task the PM to organize a bottom-up approach (task teams, strategy workshop), with the support of the MG,
- STAC recommends adopting the general procedure and timeline for the strategy preparation as agreed in the STAC-5 meeting. STAC suggests that it will review the progress and assess the next steps at its autumn meeting.

5c. Outcomes of STAC-5: p. of 2026/30 strategy decisions proposed to the Assembly

- to approve the procedure and the timeline for preparing the next phase ACCORD strategy

6. communication on DEODE

- **Communicating Destination Earth activities - guidance for ECMWF contractors.pdf, published by ECMWF in January 2023 (provided in the prep' doc.)**
- **in case of doubt, inform first the Prime Contractor (MF) who would contact ECMWF if found relevant**
- **for information to the Assembly Members, the discussions about IPR issues will be prepared this summer (first informally) in order to send ECMWF an official request (update to the inventory of background IPRs, assignment of subsisting IPRs, use of specific DEODE deliverables for another purpose than DE)**

7. membership: Latvia

- **Latvia/LEGMC:**
 - **the drafting of a cooperation agreement is work in progress by the ACCORD/PM with two representatives of LEGMC**
 - **the PM stresses the importance of allocated resources (it is expected that LEGMC will use the cooperation agreement as a tool for requesting funding and securing resources by its Ministry) and of building knowledge and expertise on NWP**
 - **the PM suggests to let the Bureau analyze the content of the agreement, once ready, and decide on the next steps**
 - **in the meanwhile, the PM probably will discuss with MG or with individual members for fine-tuning the content of specific actions**

7. membership: Indonesia

- **Indonesia/BMKG:**

- **BMKG has a long-lasting, well-established collaboration with Meteo-France International (MFI) on the modernization of infrastructure (forecasting capabilities, observations etc.)**
- **BMKG has expressed its ambition to become a leading player in its Regional Area (including NWP)**
- **BMKG has expressed its strong interest to become autonomous in running an ACCORD model in its premises**
- **a get-in-touch meeting took place in March in the MFI premises: BMKG delegation of four, MFI representative, ACCORD/PM And CNA**
- **this meeting was an opportunity to address various aspects of a potential collaboration: technical requirements, human resources for an NWP starting team, the link with the EMI, membership options (such as ASSOCIATE Member)**
- **the get-in-touch discussions have been very open and in good spirit**
- **in April, the Head of BMKG sent an official letter to the chair of the ACCORD Assembly, confirming the interest of BMKG in becoming an ASSOCIATE Member**

7. membership: ASSOCIATE Member

- **main aspects of ASSOCIATE membership:**

- the goal is for an NHMS to build its local competence in using the ACCORD common codes for an in-premise routinely run NWP system: only in downscaling mode (no DA, no EPS)
- the needed codes will be installed locally (filtering the DA and EPS codes)
- making the codes available to the ASSOCIATE Member will require an authorization by ECMWF
- one or several ACCORD Members enter a funded partnership with BMKG in order to provide the technical support (provide the codes, train the local team, support them on all aspects of the workflow, maintain an agreed level of routine support for the local application etc.)
- the ASSOCIATE membership is unlimited in time however it can be seen as a kick-off phase before becoming an acceding member

- **in link with BMKG:**

- at technical level, the PM and the CNA could work with MFI i/o to prepare a suggested work plan along with an estimate of human resources
- ACCORD Members interested to discuss partnering with BMKG and MFI could contact the PM. The partnership itself will be in the form of a specific contract negotiated between these Support Members and BMKG (the role of MFI will be taken into account as well)
- in the course of the “BMKG-ASSOCIATE” partnership, informal meetings with ACCORD representatives could be held (to try to avoid any blocking technical issue, to stay informed of the progress of the capacity building at BMKG)
- we (from ACCORD side) recommended that BMKG eventually has a team of at least two staff persons knowledgeable with running (operating) an ACCORD model at home

7. membership

decisions proposed to the Assembly

- **task the PM to continue to discuss with LEGMC on the draft cooperation agreement and to give a mandate to the Bureau to analyze the draft agreement and decide on the next steps.**
- **task the PM to organize the appropriate steps in order to look out for potential ACCORD Support Members for the BMKG-ASSOCIATE partnership, and keep the Assembly informed about the progress (in coordination with the Bureau). ACCORD Members are invited to consider entering this partnership, and contact the PM.**

8. information on the IFS-Arpege software agreement

- **an updated version was signed by ECMWF and MF in December 2022**

9. dates of 2023 governance meetings

decision by the Assembly for a full-day meeting on 4 Dec 2023

- **6th Assembly video meeting, 26 June afternoon**
- online STAC meeting to review the high level questions (3-4 weeks before the autumn STAC)
- autumn STAC (with MG), two half-days, in person (& hybrid), 25-26 October, Brussels
- PAC meeting, if convened by the Assembly
- Regular Bureau meetings in the autumn, in addition to the ACCORD Bureau to prepare the Assembly (about 3 weeks before the Assembly)
- **Assembly meeting, 4 December, full day, Reading (hybrid)** - the Assembly is informed that communication with ECMWF on the venue in their premises has already taken place. The ACCORD Assembly is proposed to be on the full Monday, and will be followed by the EUMETNET and ECMWF Council on the next four days.

10. AOB

- ??

11. closing

Martin closes the Assembly meeting by about 17:30 CEST