

A Consortium for CONvection-scale modelling
Research and Development

7th Assembly of ACCORD Partners

4 December 2023
09:00-18:00 UK / 10:00-19:00 CET

Reading and [hybrid](#)

Minutes

1. Opening and welcome

Martin (Chair) opened the 7th ACCORD Assembly meeting. Martin welcomed the delegations (see [Appendix I](#)) and the ECMWF observer, Andy Brown. He apologized for solving some technical problem at the beginning, for the delay and the postponed start of the meeting due to some flight disruption, especially Claude's flight that was cancelled yesterday. Claude only arrived a few minutes ago.

2. Adoption of the draft agenda

The agenda was re-organized due to the postponed start of the meeting. It was proposed to move the MF and ECMWF presentations after the discussions, almost at the end of the meeting. The agenda was adopted without AOB.

3. Reporting on 2023

a. Report on RWP2023 and STAC recommendations

Claude briefly reported on the realisation of the achievements of the Rolling Work Plan actions in 2023 and on the realisation of the manpower commitments. Claude showed highlights of progress on :

- Surface
 - Physiography: using an AI-based tool to improve VHR land cover maps over Europe
 - a common SURFEX code version now is in place in both the IAL and the Surfex repos, which will greatly facilitate the scientific and code collaboration
- (Upper-Air) Data Assimilation
 - The positive impact of Mode-S observations using the 3DEnVar assimilation scheme (under OOPS); this positive effect is significantly emphasized in the EnVar DA system, compared to 3D-Var

- SPTR (code adaptation)
 - porting parts of the LAM codes to AMD-GPU: spectral transforms, ACRANEB2 scheme (for the latter, use LOKI for s2s code adaptation)
 - create the new Méso-NH/Arome physics code library “PHYEX”
 - start adapting the Arome physics interface routine APL_AROME
 - a code refactoring training workshop was held at CSC (October)
- Integration of code contributions, source code forge for ACCORD
 - use of the ACCORD source code forge and of “davaï” for CY49T1
 - several webinars were organized by the Integration Leader in order to present the forge and how to work in this new environment (about 60 participants each time)
 - davaï-contributors (second) WW in 2023: team building continues ! (MF, DMI, RMI, KNMI, Met.no, SHMU)

STAC in its meeting on 25-26 October formulated the following recommendations:

- STAC reviewed the work done in 2023 and discussed the progress report. STAC acknowledged the huge amount of work and the achievements across all thematic areas in ACCORD. STAC highlighted the benefits from the DEODE project in relation to ACCORD: increased coordination, communication and training, acceleration of technical aspects such as in code adaptation, setting up system-related configurations.
- STAC recommends the Assembly to adopt the progress report.

Martin thanked Claude who already mentioned STAC recommendations and gave the floor to Saji as the STAC chair.

***Saji:** Thanks Martin. STAC actually had good discussions on the report which Claude had also presented here. A huge amount of work has been achieved including surface, upper-air, code refactoring and so on to name a few, and the report itself is very concise, really well summarised from the huge amount of work. Thanks to Claude, to the MG and to all the contributions from ACCORD staff.*

***Radmila:** I would like to mention that this year, for the first time we tried this new way to contribute to the common codes through the GitHub, (procedures worked out by Alexandre Mary), and that we got a very good experience with that, although at the beginning we were a bit afraid because we would have been rather using the old way how to do it. But in the end, the team from Czech Republic could contribute in several areas of the common codes, quite well.*

***Piet:** Thanks a lot Claude for the presentation. I'll just start with a very small comment about the code refactoring. There was a lot of work done by the community so that's something that maybe can still be added.*

The second comment is about the manpower figures because, as you said, the work on dynamics is traditionally quite low compared to the other ones. Since we are going to discuss the strategy later in this meeting, there's maybe an effect that some people who are experts on dynamics start to work more on the GPU adaptations. Maybe it's now time to start to re-evaluate this effort. I know of at least two people who in recent times got a bit more involved in the GPU adaptation than in the dynamics, and I think it would be useful to re-assess these priorities in the context of the strategy.

Roar: Thank you chair and thanks Claude for the presentation. I just want to support what Piet just said. We spend a lot of time on gpu and code adaptation and working on different types of HPCs at the same time, so it leaves less manpower elsewhere, and it's quite difficult to know how to prioritise our resources.

Martin: Your comments indeed point to other items on the agenda, such as the strategy discussion which should be in the afternoon.

Marianne: First of all, I would like to thank the PM, the Area Leaders, the advisory committees and all the experts for all the progress which is taking place in our community. I think you're really making fast development and I think it's faster than I ever thought it would be possible.

So I really want to express support to everything which is taking place and I think we have a really good background for starting our discussion on a new strategy and the new basis for our new or renewed MoU for our community.

It's also a positive development to the extent that years ago we never knew how to get new initiatives, or how to get Research money, or anything into this community, and all of a sudden we have had developments in many areas in the last couple of years.

We are rather now coming into some kind of new trouble, which is that there are so many activities to deal with that we have to think about how we spend our resources.

So we should think about it in a positive way and try to, as Roar mentioned, find a good solution, but the evolution is basically positive.

Martin concluded and took the opportunity to acknowledge the progress made in this big collaboration, and thanked the ACCORD management and all the staff for the efforts that are improving the forecast models and our numerical weather prediction systems.

Claude thanked the Assembly members for the nice comments and confirmed he will forward them to the MG.

The Assembly approved the progress report.

The Assembly approved the repartitioned manpower realization of Q1-2 of 2023. The figures will enter the voting procedures (ref to Table 1 in the preparatory document 3.a with 2023/Q1-2 added to the manpower figures for 2021-2022).

4. Plans for 2024

a. RWP2024 actions & Manpower commitments for 2024

Claude gave some statistics on the manpower committed by the teams in the RWP2024. Claude pointed out:

- a decrease in SPTR and in several other areas, partly due to uncertainty regarding DEODE-funded manpower currently under negotiation for Phase 2.
- ML tasks are included in the thematic WPs (they are listed in detail in the Introduction Section of the RWP2024 => “combined ML-NWP tasks” in ref to Item 9 of this Assembly meeting).

- increase in “common activities” WPs (COM): more difficult to explain, could be partly linked to the changing work practices (this figure was smaller for 2023)

Claude illustrated the impact of DEODE on the committed manpower and reminded that Tunisia (INM), Maroc-Météo, Meteo Romania, Turkey (MGM), Algeria (ONM) are not members of DEODE, otherwise all NMSs who are both members of ACCORD and DEODE have some manpower funded by DEODE allocated to ACCORD WP-relevant work.

Claude gave some headlines from the RWP2024, on the strong intention to continue modernize our working practices around the codes, on the organization of user feedback at the level of the whole consortium (a totally new effort for ACCORD), and on the arrival of combined AI/ML-NWP items in the RWP.

STAC reviewed the draft RWP2024 in its meeting on 25-26 October.

- STAC recognized the very high priority of code refactoring in preparation for porting the codes to GPU-CPU type of architectures. STAC acknowledged the good progress made in several areas of code refactoring over the past 18 months. STAC also recognized the new developments already started or planned. STAC emphasized the need for more staffing on code refactoring and appropriate training.
- STAC recommends the Assembly comment, adopt the RWP2024 and take note of the need for more staffing on code refactoring and appropriate training

Claude also emphasised the RWP2024 headlines on code adaptation:

- increase efforts on refactoring of Arome, Harmonie-Arome & Alaro physics and dataflow, based on knowledge gained by several teams in 2021-2022
- address re-factoring of other parts of the common IFS/Arpege/LAM codes in cooperation with MF and ECMWF
- we in ACCORD believe that this refactoring is a crucial first step to further adapt and evaluate the source-to-source approach
- We want to keep the plans aligned with DEODE phase 1 and phase 2 targets, however ACCORD has additional work force and a (in a different way) flexible organization (!)
- additional new staff could be available in 2024 and we can organize their training in several ways (tutorials, pairing etc.) => Members are kindly invited to consider whether they can further staff this activity

Martin thanked Claude for the comprehensive report with new ideas and new challenges, and gave the floor to Saji to comment on recommendations from the STAC.

***Saji:** The discussion on the RWP for 2024 was mostly centred around refactoring the code, its importance and the need for extra manpower. There were also high highlights on the importance of machine learning and on proud plans for data assimilation and EPS work. The plan seems to be quite ambitious and I would like the Assembly to support the RWP 2024.*

***Radmila:** about the code refactoring. It was announced some time ago that the new codes would remain well understandable by the scientists. We however experience some difficulties reading the code; As an example in dynamics, it's difficult to find the variable you wish. The cooperation between scientists and IT people should be looked at carefully because IT people do not understand our science. They do not develop the model instead of us. It might be very difficult to move on and to increase staffing for this refactoring, it would mean to probably look for people who could have a mixed kind of experience, which is not easy because*

usually people we can hire are people educated in the physics at the university and some of them have better skills in informatics or programming than others.
I am of course conscient about the challenge and that we should move there, but it's not really obvious.

Claude: We could gather such mowed expertise by pairing IT and scientists when increasing the staffing.

We should continue the efforts that we can do at the management group level to try to make such sort of pairing possible because then we may have addressed part of your comments Radmila.

I'm however afraid that with the code refactoring, the codes are necessarily going to change and the reading habits of the scientists will have to adapt.

This is what happened with the OOPS refactoring of the codes in data assimilation, when new data structures and object-oriented coding became the rule.

We can organize tutorials on the new code versions to help scientists, but it's also important to explain to them that the codes are going to look a bit different and why.

Roar: As a first comment, thank you very much for starting an activity on user feedback. On the HIRLAM side, we have done this for quite some time and it's very useful to get the feedback from our direct users and to bring that back to the Research plans. So that's very much welcome.

The way you plan to put AI in the code structure is certainly the approach we should take and it's also one of the approaches taken by ECMWF, namely to start replacing pieces of the code by AI modules in several places.

About the code refractory and making the code ready for GPUs. First, I can fully relate to what Radmila commented and I have a personal experience in this as I came from numerical mathematics and didn't know anything about atmospheric physics, and my task was to parallelize the Hirlam code.

For GPUs, I think that this is right now a very difficult issue. Two years ago, I would say yes, go for it because with GPU you can get a lower power consumption, lower carbon footprint, and possibly also this is the only way to further speed up all the codes while being cheaper.

Right now the situation is that it is very difficult to buy any GPU on the open market and get performance which is competitive with the traditional CPU.

The other issue is when you would need to have two parallel versions of the Code, one based on the traditional CPUs and one on the GPU, and then you would need to be very careful when you update the code. We should really avoid such a situation with duplicated codes.

(Meteo Swiss in COSMOS have problems for every update of their codes)

Andy: You are expressing the same issues we do have whether it's machine learning or code adaptation. I'm impressed by how far you've got with the code adaptation. There's certainly much more to be done, but I think having Spectral transforms and the radiation working on GPU is a good first start and very in line with what we're doing, i.e. trying to port block by block. I agree with all of the comments Radmila made, that this is challenging.

I guess maybe my very last comment is absolutely aiming to not end up with two separate codes. I think that while the COSMO experience was toward that direction, I believe that the ICON community is trying much harder to have a single code base.

Whether you're going to GPU or CPU should remain open. We're looking for long term sustainability and maintenance, that's what we've got to aim for because otherwise there's going to be an awful lot of work if you have to keep two separate codes.

Radmila: CPUs have faster memories but consume more. GPUs are more efficient, but difficult to buy and a huge manpower investment is required to adapt the code. We have to strive to have code

versions which work on GPU and CPU. Also I'm not sure whether in the GPU world there is some kind of standardization like we have witnessed in the X86 architecture. I would be a bit afraid that GPUs made by different manufacturers respect some standards and maybe that some, like NVIDIA, would never like to have standards.

Claude: I believe that we all want to avoid having 2 versions of the code, but that also leads us to develop a much larger variety of the tools to handle the code.

When we'll address staffing of system activity for the future or when we'll discuss code and system for the strategy, the idea of an ecosystem of codes becomes an important aspect we must keep in mind and that had already been mentioned during the last STAC.

Jure: I was lucky enough to be in the Bologna HPC workshop this year, and I even got a bit more confused. My impression was that there is an explosion of different technologies arising and that it's really going to be very difficult to cope with it in the future years. It's worth following the developments on the hardware part but there seems to be far more around than just the GPU. It's going to be quite difficult to be effective and I really count here on ECMWF because they have a bit more resources so they might show us the way how to go.

Martin thanked the ASsembly members for their comments, and asked if the Assembly was ready to approve the RWP2024.

Roar asked to add a sentence on the importance of keeping only one version of the codes.

The assembly is approving the RWP2024 and agrees on the importance to strengthen the staffing on code refactoring and appropriate training. The assembly also stresses the importance of being able to run a single version of the code on both CPU type and hybrid CPU-GPU type HPCs.

5. Budgets

a. Realisation of the DAP2023

The PM and the CSS finalized the costed Detailed Action Plan (DAP2022) in accordance with the ACCORD MoU rules, the decisions of the 5th ACCORD Assembly, based on the Rolling Work Plan 2023 (proposals for WW and scientific visits by the MG, with exchanges with the LTMs and the teams). The signed DAP2023 was published on 17 February, with additional actions decided in the course of the year (until the beginning of the autumn) in order to allow more flexibility.

In 2023, there was a very good realization of the planned WWs and a rather good realization of the scientific visits. The outcome of the full realization of actions (done, not done) leads to the Table of regularization for 2023 presented in the preparatory document 5 "DAP23-24" (Table 1).

The Assembly formally approved the regularization figures for 2023 ([Appendix II](#): amount to be reimbursed by, respectively to, Members in 2024 for non-executed, respectively additional, actions in 2023).

b. Budget for 2024

Claude proposed to keep the membership fee unchanged (11 k€ per Member) and to partition the expenses between:

- “governance” expenses (246.88k€), including PM salary, short missions of PM & CSS, short missions to one STAC meeting (PAC online only), 2 one-week missions for the LTMs and MG at the ASW and at EWGLAM, missions for the DO, ASW organisation costs and a working week on Strategy;
- R&D actions on the DAP (Working Week organisation and travels, and Scientific visits): same level of funding as was planned in 2023 for the scientific visits and same as realized in 2023 for the WW/WD (115.85k€).

Taking into account the reserves and the regularization figures for 2023 actions (see item 5a), this leaves a surplus of 120.85k€ in the 2024 budget.

Radmila: Is the surplus increasing or decreasing ?

Claude: If we manage to make the expenses that we plan, it would slightly decrease.

Martin: I do appreciate that the membership fees remain unchanged.

**The Assembly approved the Membership fee for 2024: 11k€ per member.
The Assembly approved the partitioning of the budget (see [Appendix III](#)).**

6. Governance and management:

Claude explained that this item had no preparatory document. He gave an oral update and proposed actions for the Assembly.

a. Changes in Support Team

The opening of the Documentation Officer (DO) position was validated by the Assembly in its 26 June meeting.

The Call for Applications was open from 3 August through 6 October 2023. One application was received.

The interview panel composed of the PM, the CSS, the System Area Leader, and the three CSC-Leaders decided to interview the candidate and was very happy about the discussion. The panel therefore fully supports the received application.

Claude explained that he is currently staying in touch with the applicant and the programme management in order to sort out organizational matters before the proposal can be confirmed to the Assembly.

In order to not have to wait for the next Assembly in 6 months and lose some time with the DO, Claude suggested that he would keep the ACCORD Bureau informed about the outcome of these last steps, and proposed that the Assembly could mandate the Bureau to analyze this outcome and decide on a nomination by electronic voting.

b. Nomination: PAC, STAC

Claude explained that Haythem Belghrissi from INM-Tunisia has left the institute for a while and therefore he has also left the STAC.

In agreement with Saji (STAC chair), INM-Tunisia has been approached in order to check whether they would like to suggest a new name which they kindly agreed to do.

The proposal is to nominate Mrs Rahma Ben Romdhane from INM. She works in the NWP team and more specifically on microphysics. Besides that, she has recently taken up a responsibility in local projects with external funding.

The PM and STAC chair support the proposal.

Marianne: I'm very much in favour of the two decisions. I just want to add that the organizational questions which you were talking about, Claude, concerning the documentation officer, are intended to be promptly solved in the HIRLAM family. And in case there is any issue, please let me know. So I just wanted to indicate full support and any kind of help you need.

Claude: I confirm that I'll stay in touch with you, Jeanette Onvlee as Hirlam PM, and the ACCORD Bureau.

Marianne: could it be legally possible to give the mandate to the bureau to take the decision; not to have to ask the whole Assembly ? I would be supportive of this solution which simplifies the procedure.

Claude: According to the MoU, it is the Assembly as a body who should take the decision on the nomination. The Assembly may agree to mandate the Bureau, which could then be understood as a slight move of the decisional power from the Assembly to the Bureau. I suggest the Assembly could decide for such a shift only for this very particular decision (on the DO nomination).

Daniel: It is anyway just a one shot authorization to give to the bureau.

Marianne and Saji agreed.

The Assembly mandated the Bureau to decide on the approval of the nomination of the DO and inform the Assembly (with some details on the applicant).

The Assembly approved the nomination of Mrs Rahma Ben Romdhane as a representative of the Aladin-MoU5 family for the STAC. (see [Appendix IV](#)).

7. Update on the preparation of the scientific strategy for the next phase of ACCORD

Claude presented the preparatory document and reminded the Assembly members that all preparatory documents are open for sharing with other people in ACCORD institutes and teams.

Until now, the scientific strategy was mostly an effort by the Management Group and the STAC, separately, then together at the STAC+MG Brussels hybrid meeting 25-26 October.

The outcome was that there are two levels of High Level Questions (HLQ).

- limited, affordable extensions within the current scope of ACCORD
- another set of questions with what is beyond the current scope.

Claude then listed the content of each of the two sets of HLQ with a few more highlighted details.

HLQ within the current scope of ACCORD and with limited extensions

- Around the current IFS/Arpege/LAM (“IAL”) codes, including making further progress on
 - very high resolution modelling, hectometric grid meshes [750m-100m]
 - system and code maintenance, including GPU adaptation, managing the ecosystem of codes etc. which is a topic that is likely going to require an increase of staffing and expertise
 - R2O white paper thematics (testing and meteorological-oriented validation, user feedback, documentation)
 - the continued efforts in the main scientific Areas, dynamics, physics, data assimilation and use of observations, surface, EPS and probabilistic forecasting, meteorological quality assurance
- Potential extensions:
 - some higher ambition on Earth-System Modelling and coupling
 - combined AI-ML/physics-based NWP using resources and infrastructure catered by the partners
 - more joint efforts on model outputs, diagnostics and post-processing
 - increased ambition on collaborative tools for R&D and its management, which might require to explore some on-pay solutions for the future
 - a Data Manager might be needed (anyway) in a foreseeable future
- The proposal is to move on with the scientific strategy preparation for these aspects

“Big HLQ” addressing topics outside the current scope of ACCORD

- Data sharing and a common data-centric infrastructure (or some shared resources within such an infrastructure) suitable for instance for AI/ML studies
- Join efforts on developing common tools to organize model outputs in relation to EU regulations (High Value Datasets) or other international Projects (WMO etc.)
- Collaboration on a solution for a common end-to-end NWP system (from observations until some level of production-ready forecast products)
- Toward some common operational collaboration ?
- Related to the above items, issue about how to handle these questions with respect to other international collaborations (other potential partners, other initiatives like ECMWF pilot projects or the ICWED initiative, Destination Earth)

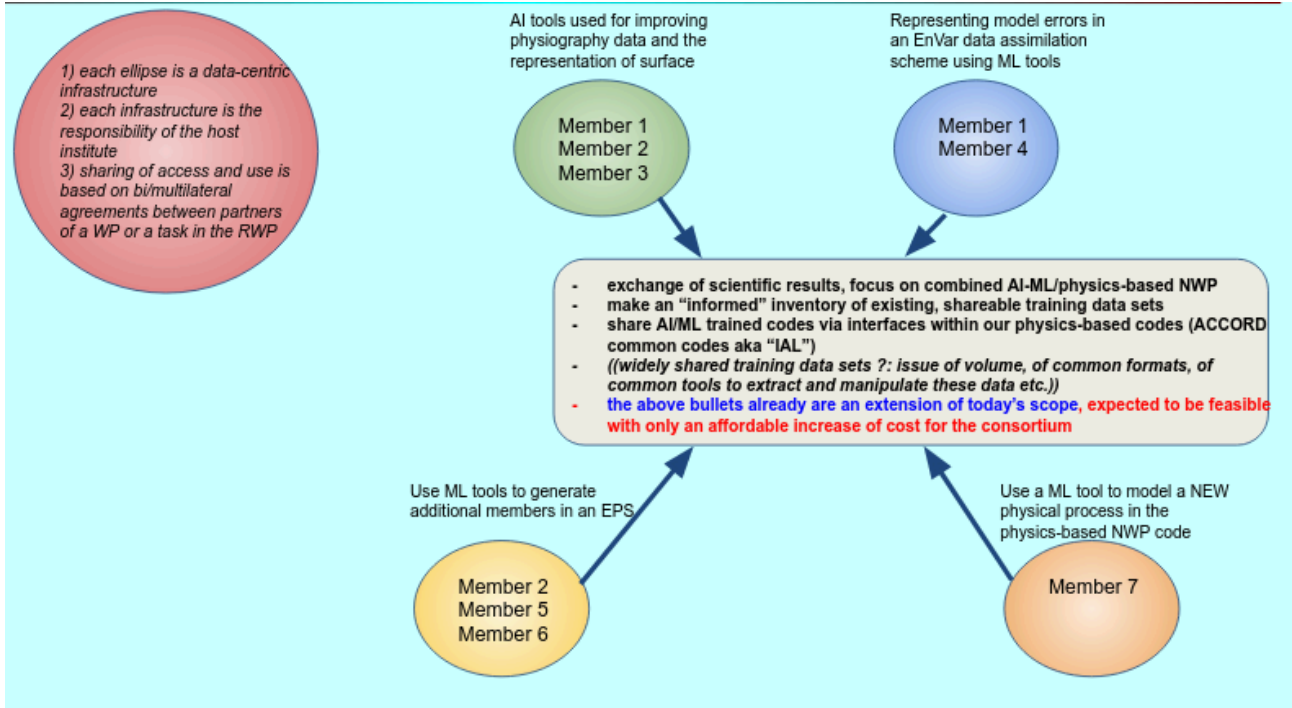
For the discussion especially on the “big HLQ”, Claude proposed the Assembly to consider discussing the following orientations:

- Can some of these topics be dismissed, or can we set a strong, high priority on one of them ?
- Suggestion is to then prepare a questionnaire in order to collect all Members’ opinion on the relevance of the (remaining, reformulated) “big HLQ”
- Form a Task Force around the PM to prepare this questionnaire.
- PM proposal: PM+CSS, 1 or 2 STAC, 1 or 2 PAC, forming a fair representation of all families with max 6 persons, use 1 external expert on data science ?
- the PM would work in agreement with the Bureau to form the task force

In addition, Claude provided the Assembly a graphical example of what different levels of ambitions in scope could mean, using the case of AI/ML for NWP. The two figures (Figure 1 a-b) below are those shown and commented during the meeting, with a dedicated caption for each (for the Minutes).

“AI/ML for NWP” in the current scope with limited extensions

(a)



(b)

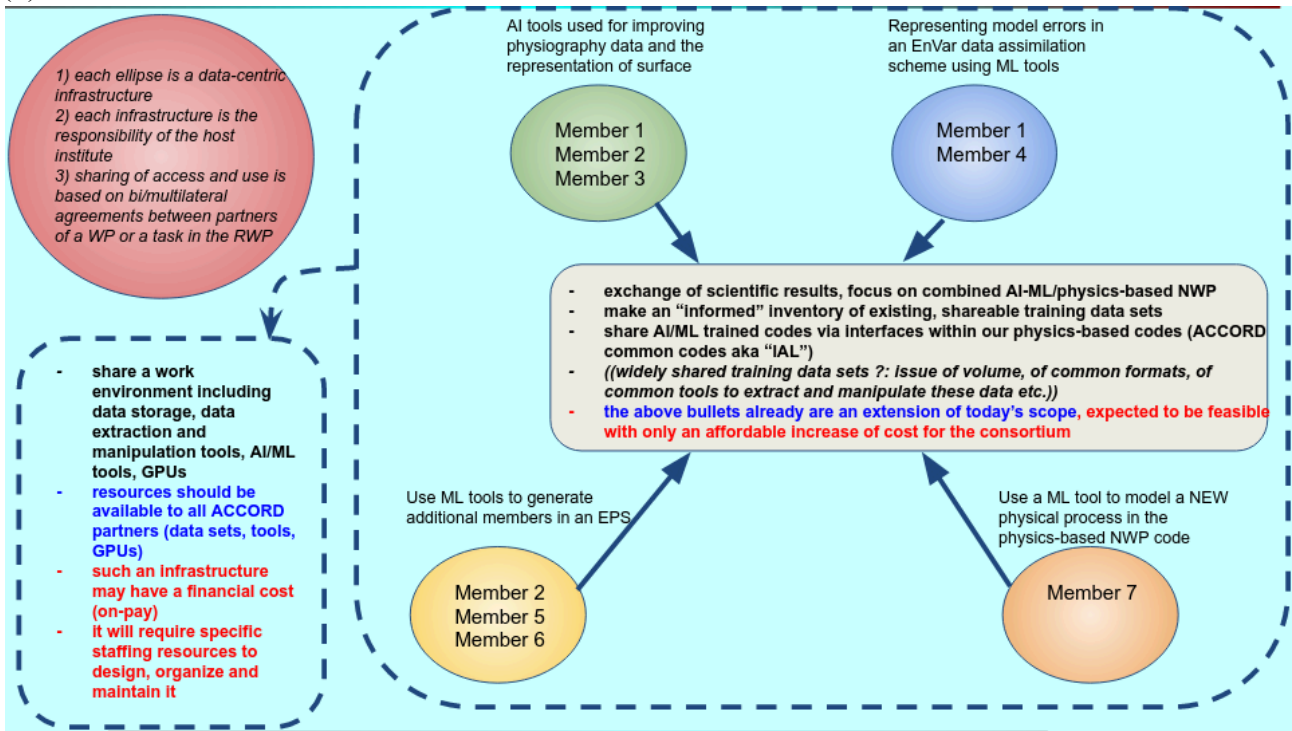


Figure 1: Graphical representation of a possible strategic vision and organization of AI/ML for NWP activity

in ACCORD, depending on the level of ambition.

- (a) *With only a moderate increase of ambition (current scope with limited extension), ACCORD could focus on combined AI/NWP around the current IFS/Arpege/LAM codes, sharing specific new AI/ML trained codes mostly following the current provisions and practices from MoU1, holding an inventory of available and usable training data sets as a best effort. This level of ambition is materialized by the coloured ellipses, boxes and full arrows. It is expected that this moderate level of ambition can be achieved with also a moderate and affordable increase of cost to the consortium.*
- (b) *A more ambitious goal could be to strive for a shared data-centric infrastructure enabling a significantly higher level of coordinated actions by providing such infrastructure resources to all members. This goal ranges beyond the current scope of ACCORD. It is materialized by the dashed contours on the figure. This high level of ambition could be associated with a fair significant increase of cost to be carefully instructed.*

Claude eventually explained that the rapidly evolving context around ACCORD had been mentioned a number of times during the STAC/MG discussions, and beyond in other strategic or organizational meetings in the European community. Agile management was sometimes mentioned in a trial to make more formal the need to be able to follow and to adapt to these changes. Claude added that he was really considering trying to make such an idea of agility, or flexibility, more concrete in the framework of the ACCORD strategy.

Agile management in ACCORD ?

- Some level of agile management could be appropriate, for the short term preparation as well as for the actual drafting of the scientific strategy for the next phase, for instance:
 - splitting the HLQ in terms of their scope
 - Making the questionnaire
 - Making some level of agility or flexibility explicit in the strategy document
- Take into account some agile management within the organization of ACCORD in the next phase

STAC recommendations

- STAC welcomed the reviewed version of the MG-roadmap (note for the Assembly: the reviewed MG-roadmap was distributed to STAC members, who could further distribute it across their families)
- STAC with MG discussed the current status of high-level questions for the next phase scientific strategy.
- STAC recognizes the importance of the goals and challenges in relation to the current scope of ACCORD, and which need to be taken into account for the next phase (such as interoperability, how to handle the ecosystem of codes and tools etc.)
- It was recognized that some of these questions relate to an extension of the scope of ACCORD with respect to the MoU1 phase which have important consequences for ACCORD and its Members. STAC recommends that the questions relating to the extension of scope are reformulated and that the PM prepares this reformulation and their discussion inside ACCORD.
- STAC recommends taking into account the need for agility and flexibility for the preparation of the next phase strategy, and taking into account the uncertainties and how to mitigate the risks.

Martin thanked Claude for his presentation.

He explained that there is uncertainty about the 2nd group of high level questions. There are so many opportunities and challenges. Members should say what the priorities are although it's not easy to decide on them. We also should take into account a number of organizational and governance issues.

Taimar: *I wonder if the AI/ML based NWP and its needs should be catered in collaboration with other partners. Could we then have any specific partner in mind ? Shouldn't we have any idea on this before starting anything ? Should we have an evaluation of the cost-to-benefit ratio ? Wouldn't it be easier if some recommendations are given beforehand ? Prior to the questionnaire ?*

Claude: *Regarding the partnership, if you think of a wider framework for instance for accessing data centric infrastructures or organizing AI/ML studies, it's quite open. Some strategy choices have to be made however.*

One possibility is that ACCORD proposes such a framework and looks out for an infrastructure.

Another possibility is that ACCORD members organize themselves in collaborations with other initiatives, mostly in the context of European initiatives. Then one could think of ECMWF (pilot projects), EUMETNET (optional programme), the link between these two etc.

We would then be more opportunistic in a way, and we then must be organized to look at how other projects in our surroundings evolve and build with time. We would as ACCORD benefit from their momentum, but we also would be dependent on the results of these other initiatives.

Then there is the question of what sort of Infrastructure will exist in a few years over Europe. There is the development of the European weather cloud that may bring some possibilities. Also some of the international Institutions will develop their infrastructure and if ACCORD members are also members of these institutions, such infrastructure could be evaluated for a use in ACCORD.

Regarding a cost-to-benefit ratio, that is a valid point. We should try to do it, however the Assembly should really first help prioritize across the thematics. Should ACCORD move towards more operational collaboration or towards more AI/ML framework and infrastructure ? Or any other favoured direction ? I would like to see orientations or directions from the Assembly members.

Piet: *You talk about common operations, infrastructure, etc, but it would require a lot of legal thinking before we could set up any such thing. So even with a dedicated Task Team, it seems rather difficult to address such questions now in ACCORD. We would need some specific expertise on these aspects, and it rather seems like a big wall !*

Claude: *Agree that several of the open big questions call for legal expertise which we don't have at ACCORD level.*

Perhaps this difficulty could be somewhat mitigated. For instance if you think about an operational common framework, there are different ways of defining an operational collaboration. It would be up to the Members to understand what the legal/governance issues could be in each possible scenario.

Regarding the idea of the questionnaire, I believe that we should take enough time to formulate it well in any case. Nevertheless, I believe the meeting today gives the members an opportunity to express their views on where to put the focus when drafting it.

I also would like to add that in ACCORD, we will have to be agile, to be able to adapt, and this also is an aspect that I'd like to make more explicit via the questionnaire.

Radmila: *There is also the question of responsibility for common operations. It depends very much on how such common operations are defined. In case it costs much more money, there are also more responsibilities. So if we were to enlarge the scope of what we are doing, we have to keep in mind*

that this is not for free and that we will have some obligations to fulfil, some guarantees to provide and other such things related to commitments.

Example, LACE jointly runs an EPS configuration. Currently it is being operated in a gentleman's agreement framework. Fortunately, it does not cost that much so that the financial implication is well aligned with a moderate level of commitment.

But if we would have to finance something that would require a lot of storage because it should cover the domains of all members, and thus the domain would be large, I'm afraid it will induce a lot of cost. So I'm really not sure about which complexity we could aim for, unless we could have some external financing from the EU Commission perhaps. However then the whole question becomes related to EU political decisions and it could depend on changes in the Commission.

My other comment is about what I read in the preparatory document about the High Value Data. The concept of it was decided by the EU Commission and we have an obligation to do the related actions with a deadline on the 8th of June 2024. In any case, we will have to provide results from models by then. It might be difficult to get organized at the ACCORD level by then, even if I'm a bit afraid that if we start it at national level, then it might be even more difficult to go to something really common afterwards.

Claude: *agree that regarding operations or common activities related to EU regulations, we would need an appropriate expert understanding about legal considerations, governance considerations, questions of responsibility etc. And regarding the questionnaire, be able to draft questions along such lines. Address the expected "Service Level" and so on.*

Radmila: *if our ambitions increase in relation to European initiatives, there could be membership issues since not all ACCORD Members are from either EU or are Members at ECMWF etc.*

Regarding initiatives based on EU regulations like the High Value Datasets, the whole value chain might even not be in the hands of our institutes. In the Czech Republic for instance, the data will eventually be made available to the public by a different organization than CHMI. Then many choices actually don't lie in our hands.

Claude: *Indeed. The question about the High Value Datasets was not specifically discussed by the STAC. Therefore we have much less preparatory material for it. It was however mentioned during the preparation for this Assembly meeting, and I thought it was fair to keep it visible and to open the floor to comments on it.*

Regarding your other comments mostly about the challenges and difficulties if ACCORD would strive for any kind of operational collaboration, the more precise phrasing of strategic questions would depend on a more precise definition of what such an operational collaboration could be. There probably are several ways to define it.

Radmila: *So we are talking about something that is not defined that we do not know about what we actually are discussing.*

Martin: *That is why we are talking about such items now. We are asking you members about your opinions. Should ACCORD spend more effort on exploring options on such topics or not.*

Marianne: *thank you Claude and all the rest of the people who prepared all the discussions. It is complex to review and elaborate on the new strategy. It is not just a prolongation of what we've been doing the first five years. My first recommendation would be to keep the strategy simple and as short as possible and to remember that we do have the rolling work plan, which should be used in order to see if we are able to reach the ambitions we have in the strategy.*

The strategy means that we will put up some ambitions, something we want to do, something we want to aim at, but we might not necessarily know how to get there. If we can manage or not. That's what the work coming next should help us show, whether it's possible or not.

I can support most of the priorities which are already explicitly proposed in the documents.

When formulating the questionnaire, we should not be too detailed or too comprehensive. It shouldn't answer questions but rather help us to put up our ambitions.

So probably one last thing which is important is to promise each other that we always want to work in favor of getting benefits out of whatever collaboration we engage, and with a benefit for all the ACCORD Members.

We can support the idea of task teams and the timetable proposed by Claude. We support what is in the documents and this whole idea of an agile way of looking at management of this process.

I'm in favour of what has been said, but I just wanted to raise the flag so that you don't make it too complicated. Don't make the strategy document too long in the end. Don't make it too technical from the beginning. Otherwise it is not a strategy anymore.

Martin: *Thanks for the comment, especially about the planned questionnaire.*

Roar: *Agree with most of what Marianne said so I won't repeat that, but I wanted to comment a bit on the second group of high level questions.*

ACCORD should take advantage of what is going on elsewhere and of all the different collaborations we have across the whole of Europe, which also means using our common organizations, ECMWF, EUMETSAT and EUMETNET.

When it comes to AI and ML, we will discuss that inside the EUMETNET Council tomorrow. A project is being set up on machine learning, weather prediction and related issues.

High value dataset: it is correct and worth mentioning that EUMETNET has a project that will develop the infrastructure (tools) for the members to access high value datasets.

About data sharing and a common data-centric infrastructure, it is known that EUMETSAT will propose a project about it. I think that taking advantage of all of this, rather than trying to do it only within ACCORD, would be highly beneficial.

About High Value Datasets, there is the RODEO project, partially funded by the EU, which will give the members directives to develop the infrastructure and the tools. Numerical weather prediction datasets are a bit more complicated datasets than the other datasets that we have, so it will not be fully covered, but again, rather than trying to develop it within ACCORD, I would strongly support that we look at what is done in the RODEO project and see what can be reused.

Regarding the common operational collaboration and infrastructure I'm a bit reluctant because there are so many important things to tackle once you start such considerations.

Some of us have quite some experience of what that can mean in practice. Sweden and Norway started a common production in 2014. So that's almost 10 years ago and it took a few years to build up (MetCoop). Now several other institutes have joined that collaboration, and on top of it we have formed the United Weather Centers (UWC). In this wider context, a few other institutes are setting up a common operational framework for the Western part of our geographical area (UWC-West).

But those processes take time and are quite complicated, so my advice to ACCORD would be to focus on the research and the development of the code system.

Saji: *My comment is on AI/ML. I concur with Marianne and Roar. Many projects are shaping up in the context of ECMWF, EUMETSAT, EUMETNET and so on. We have not defined yet what further we will be doing in these contexts. I also feel that it might be premature to think about shared resources, data sharing, ... before we actually decide on our research priorities.*

Werenfried: *About AI/ML infrastructure and also about common operations, I think it's too early to try to take into consideration such goals for ACCORD. ACCORD should continue to focus on research, but strengthening research to operations is something that is very important for our core activity in the institutes.*

Jussi: *I do agree with the previous speakers very much.*

Piet: *This morning we discussed GPU adaptations. I checked the current strategy that is running and I noticed that when we wrote it we introduced some notions like Radmila mentioned, separation of concerns, flexibility and things like this. We are a step further now.*

For the next strategy, I think it would be useful to come back to the strategy of the first MoU, see if we now can define it better and start to communicate with the people about where we were, where we are currently, what is our intention for the future. For instance, to still develop the codes for the CPU, but also to implement new tools like the source-to-source translators.

Radmila: *I support Roar's previous statements. Then another question, how should we define "agility". It could be a good idea to go for some agile management but what does it mean ?*

Claude: *I suggest that the Assembly members take up this aspect as well. In my opinion, "agility" could mean that in ACCORD we organize ourselves more to be well informed about the other international initiatives that either affect us or could be used by us. Also that in ACCORD we try to become more influential in the context of other initiatives (speak more or less with the same voice?).*

Radmila: *what should we change from what we are doing now ?*

Roar: *being agile could be for code or for management. To be able to catch up on opportunities.*

Gerhard: *ACCORD is a good basis for us in how it is defined today. The questionnaire should indeed not be too detailed. Agility could be reinterpreted as being flexible. With respect to other initiatives, we could say that ACCORD needs to be cooperative. In the end, for our strategy, we should address the goals with respect to the benefits and needs of our citizens.*

Also add that "agility" rather is a wording that relates to a specific type of management, it's a certain management technique.

Daniel: *Agrees that agility is rather a management method for projects. It means that one could change some specific targets depending on the outcome of previous achievements for instance, one can change its mind.*

We can leave the "agility" aspect to the MG+PM, and decide for the high level questions at our Assembly level.

Martin: *concludes that the suggested actions for the next steps in the preparation of the strategy are approved. The recommendation by the Assembly is to keep the questionnaire simple.*

Claude *thanked the Assembly members for the good discussions. Remarks, goals, intentions, some of the ideas that have been expressed today will greatly help to formulate the questionnaire. A few general directions indeed are given now. Operational collaboration should not be in the focus, neither to address regulations and legal aspects in the context of common operations or EU decisions. There also is a clear signal from the Assembly that ACCORD should look for cooperations with other initiatives in the context of the European Meteorological Infrastructure (EMI).*

I also take away the message that ACCORD could benefit from some level of agility or flexibility. This could also mean to become organized to be influential in other bodies. All of this gives quite some input for the strategy and for the questionnaire. Regarding the strategy, I would just like to add that we must expect its content to go beyond a simple, general level. The TT certainly will provide details about their scientific vision.

Regarding the first group of HLQ (current scope with limited extensions), the Assembly approved the continuation of the preparation procedure, following the timeline reminded in Annexe A of the strategy document. The very next step then is to form the Task Teams to further prepare input to the scientific strategy workshop in spring 2024. The full description of the Task Teams is provided in Annexe D of the strategy document.

Regarding the second group of HLQ (beyond the current scope), the Assembly validated the creation of a dedicated task force in order to reformulate the remaining “big HLQ” in a questionnaire form. The Bureau could analyze this questionnaire and decide about its distribution among the ACCORD Members.

The Assembly recommended that the questionnaire remains simple.

It also advised that ACCORD should use any opportunity in international collaborations to enhance its R&D capacities.

The Assembly approved that some level of agile management could be defined in relation to the scientific strategy and MoU2.

The assembly noted that several organisational and governance questions have been listed, which could be taken up during the preparation of MoU2 (Annexe C of the strategy document)

8. Strategy for international collaborations around the common codes

The 6th ACCORD Assembly on 26 June decided to convene PAC with the following goal:

- “The Assembly instructed the PAC and PM to prepare a 2-3 page document analyzing how an expanded collaboration could fit into the ACCORD overall strategy and ambition, the advantages versus disadvantages, including a risk analysis and the drafting of a series of questions or requirements for potential candidates, paying attention to the possibilities for ACCORD to provide support.”

Claude then presented the Headlines of the outcome of the PAC discussion:

- PAC agreed on a Table of advantages versus disadvantages (Table 1 in the preparatory document for Item 10)
- Recommendations by PAC (see below)
- Some additional material, prepared for the PAC meeting, is provided for information in the Annexes 1-2 of the preparatory document (they complement the original request by the Assembly of 26 June)

PAC recommendations (agreed in their meeting on 10 October 2023):

- PAC recommends to approve the table of advantages versus disadvantages of an expanded international collaboration with the ACCORD codes. Training should focus on NWP and the

possibility to use ECMWF training. PAC recommends that the elements in this Table could be used in future to assess the impact of such an expansion.

- PAC recommends keeping an open approach to the expansion of international collaboration in ACCORD, and addressing each new request for membership on a case-by-case basis.
- PAC recommends that ACCORD approaches ECMWF and re-evaluates with them the following aspects:
 - how to handle new membership requests in ACCORD w/r to ECMWF. Does ECMWF support the current case-by-case evaluation ?
 - What is ECMWF's vision on expanding its own membership ?
 - What is ECMWF's view on the impact of Destination Earth or other EU-funded programmes on international collaboration with the IFS codes, with the ACCORD codes (provided to DE_330) ? How do they analyze the impact of IPR-related issues (licensing etc.) ?
 - Does ECMWF envisage in the foreseeable future any significant evolution of its software policy regarding the IFS codes (for instance an open source distribution of the full code) ?
 - To organize this discussion, PAC suggests that the Assembly forms a small task team including Assembly representatives and the PM. This task team could report on the outcome of the discussion to the Bureau, who could analyze how to finalize the strategic position paper for submission to the Assembly

Claude finally invited the Assembly to discuss the recommendations by PAC. Claude added that in the discussion, the Assembly members should evaluate whether they could approve the discussed version of these recommendations including:

- The Table of advantages versus disadvantages of an expanded international collaboration, whose elements could be used in future to assess the impact of such an expansion
- To keep an open approach to the expansion of international collaboration in ACCORD, and to address each new request for membership on a case-by-case basis

Furthermore, to decide on the next steps, especially to form a task team for approaching ECMWF with the open questions formulated by PAC.

Claude also added that he is proposing this "Membership-TT" to be composed of: PM+CSS, chair and vice-chair of Assembly.

The floor was then open to reactions by the Assembly.

Florinella: I think that in PAC we could do a good job regarding the Table with the PROs and CONs, also thanks to the good preparatory material for that meeting. Thank you Claude for having put so much detailed information into the PAC preparatory document. That will be useful for the future as well.

I'd like to propose to change one wording in this Table, namely replace "different cultures" by "different work procedures".

Claude: agree. We did not mean cultural differences in a general way indeed.

***Werenfield:** agree, one could use “different work culture” instead. I think this can be challenging indeed, and fairly difficult to organize and to retrieve a benefit in the short range. However, it could prove beneficial in the long range.*

***Rune:** We would like very much to support this TT proposal.*

***Saji:** We also could ask ECMWF whether they see any implication of Foreign Affairs for their Member States or Cooperating States ?*

***Martin:** some informal approach with Florence Rabier could perhaps rapidly be taken, and keep the Assembly informed.*

***Claude:** There could be a timing aspect between organizing the discussion with ECMWF and providing feedback to the ACCORD Assembly on the one hand, and use that outcome to further discuss with the Indonesian Service (ref to the next item on the agenda). Let's see if we can organize the discussion with ECMWF soon.*

***Andy:** Agree with the questions formulated and to discuss them with ACCORD representatives. I'm in communication with Florence on them as well. However, I'd like to stress that the only kind of opinion we could provide in that discussion is one as ECMWF management. Beyond that, when it comes to addressing potential decisions, then that is a matter for the Council, and therefore for the Member States and their representatives. So in the end, the actual decisions to be taken are again in your hands, as Member State representatives. We can help as much as we can, but any matter of decision will have to be brought to the Council.*

I also would advise on a very stepwise approach. Start indeed first with the TT discussion, then you see how you could make further progress at ACCORD level.

***Daniel:** Regarding membership, we had at the ECMWF Council the issue with Russia. We could again study what the outcome of that discussion was.*

***Martin:** So the conclusion is that we can indeed make the small TT and use the PAC questions to discuss with ECMWF management.*

***Claude** confirmed he would try to rapidly organize a meeting with the designated people.*

The Assembly approved forming the task team and approaching ECMWF management to discuss the questions from PAC.

9. Membership

Claude briefly explained the status of the preparation of the draft cooperation agreement with the Latvian NHMS.

Latvia:

1. a draft cooperation agreement has been prepared (ref to preparatory doc 11), presented today to the Assembly
2. once approved and signed, LEGMC will be invited as observer to the ACCORD Assembly meetings

After Claude's presentation, Martin opened the floor for comments or questions.

Roar: *I'm very supportive of the cooperation. Tomorrow we will sign the METCOOP collaboration agreement with Latvia. So it is all going in the same direction.*

Claude emphasized that he had been exchanging with two ACCORD Area Leaders on specific suggested actions (MQA and DA). Furthermore, the ACCORD MG has been informed about the cooperation discussion and provided input to the PM for the cooperation discussion.

Eventually, Claude stressed that the Activity Plan (in the Annex of the Agreement) includes the possibility for a scientific visit to one ACCORD team. Thus, he will contact some ACCORD teams during 2024 for hosting a Latvian visitor, provided the Latvian NHMS can obtain sufficient funding and staffing to realize the proposed action.

The Assembly approved the draft cooperation agreement between ACCORD (allowing signing by the Chair) and LEGMC.

Indonesia:

Claude reminded and reassessed the situation regarding the membership request by BMKG.

1. BMKG has confirmed informally its high level of motivation to join ACCORD
2. the Associate Member request remains open
3. the planned discussions with ECMWF, on key issues regarding the expansion of international collaboration with the ACCORD common codes, will help preparing the next steps

Claude stressed the need to present the request for membership to the ECMWF bodies for an approval (link with the IFS codes). Claude added that in case rapid progress could be made, a target could be to submit the proposal to the spring PAC and then Council. However, we need to bear in mind that the proposal has to be presented by a Member State.

Martin: *explained that no decision is to be taken at this Assembly meeting, but we are interested in hearing the remarks by the Assembly members.*

Andy: *The request would have to go to the President of Council, then to go to the PAC.*

During the follow-on discussion, several members took the floor to express their current views, their support or their interrogations. Comments also were made regarding the need for additional information. The comments as a whole encompassed the following aspects:

- We will at a stage need more information about the goals and ambitions by BMKG to enter into the cooperation with ACCORD, also more information on the means they do plan to invest for the membership and how they see their involvement into ACCORD objectives and work plans;
- Conversely, some questions were formulated on whether the main interest was to only get an access to ACCORD models, in addition to other openly available models;
- It could be worthwhile to understand what the background meteorological educational level in their team is, how they see their ambitions and main fields of interest on research in NWP (which is a core effort in ACCORD, in link with the code development);
- Comments were made on the appropriate framework to organize the start of this cooperation. Indonesia belongs to a geographical area which is identified at WMO level as a

high priority area for capacity building. How will we in ACCORD then position ourselves and decide to help them do their missions ?;

- Is ASSOCIATE membership then an adequate framework, or how to combine this membership possibility (from the MoU) with an actual project set-up ?;
- Several members confirmed they already have experience in working on capacity building with other NHMSs in the context of international projects;
- Some concerns were raised regarding the level of required resources to efficiently kick-off this cooperation. How much help would they require ? Are ACCORD members sufficiently staffed and could they afford the resources given their other priorities ?;
- We may need quite objective criteria to evaluate the relevance of any new membership (question then would be how to draft “hard objective” criteria at all ?);
- To limit the potential needs for support and help, one could think of narrowing the goals in a first go (note: in the ASSOCIATE membership provision, only the dynamical adaptation codes would be provided, which excludes DA or EPS components);
- The point was made that, at some stage, we will have to identify interested members to provide support, in any given framework. It was stressed by several members that this support should include helping BMKG to have operational-ready configurations in their premises.

Claude suggested that as PM he could try to liaise with the BMKG correspondents and check with them how they could provide some additional, written material to explain their ambitions and how they see the organisation of the cooperation with ACCORD. He recalled the link with the planned discussion with ECMWF.

Martin concluded this open discussion by re-assessing that no decision was required in this Assembly meeting. He proposed that the membership request by BMKG could be put on the agenda of the next Assembly taking into account the outcome of the discussions in the meanwhile.

10. Dates of 2024 Consortium events, including next Assembly

A list of the main ACCORD events was provided in the preparatory document for item 12. Regarding governance body meetings, the relevant timing information is recalled below:

- Regarding the possible dates for the 8th Assembly video meeting: 1st week of July ?. For information, ECMWF PAC 23-24 April (virtual), EUMETNET Council 28-29 May (Toulouse, F2F), ECMWF Council 19-20 June in ?? (F2F), EUMETSAT Council 26-27 June (F2F)
- Regarding the possible dates for the 9th Assembly meeting, beginning of December 2024 (potential dates could be Mon 2 Dec or Thu 5 Dec in Darmstadt, or Mon 9 Dec in Reading/Bonn/Bologna), two half-days or one full day, possibly in connection with the ECMWF Council or the EUMETSAT Council. For information, ECMWF PAC 21-22 October (F2F), EUMETSAT Council 3-4 December (F2F), ECMWF Council 10-11 December (F2F), EUMETNET Council 12-13 December (virtual)

The Assembly agreed on the timing of its 8th meeting in the first week of July, and also on the potential dates for its 9th meeting in December (on either 2-5-9 December).

Claude will make framadate polls for the Assembly members in order to propose the most optimal date for each of the two meetings.

Martin thanked ECMWF for hosting us for this 7th Assembly meeting.

A list of ACCORD meetings since the last Assembly, along with the main scientific and management meetings planned in 2024 is given in [Appendix V](#).

For the sake of clarity, it is reminded in these minutes that the Assembly today did not decide to convene any PAC meeting before the next Assembly.

11. MF: status and plans

12. ECMWF: status and plans

As the meeting time reached 6pm local, the MF and ECMWF presentations had to be cancelled. Marc and Andy agreed to make available their slides (they will be provided on the ACCORD website). The Assembly members could contact them in case of questions on the slides.

13. Closing

Arni informed that it was his last meeting and thanked the Assembly for all the work.

Martin thanked Arni for all the work he had been doing over the years for the meteorological community and the always very good cooperation and spirit when working with him.

Martin thanked the participants for their proactive participation in the discussions, and closed the meeting at 18:00 UK.

Appendix I: Participants (in-situ, remote)

Member	Delegation
ALGERIA	Mohamed MOKHTARI (LTM)
AUSTRIA	Gerhard WOTAWA Christoph WITTMANN (STAC, LTM)
BELGIUM	Daniel GELLENS (vice-chair) Piet TERMONIA
BULGARIA	Ilian GOSPODINOV Boryana TSENOVA (LTM)
CROATIA	Branka IVANČAN-PICEK Kristian HORVATH
CZECH REP	Radmila BROZKOVA (LTM, PAC)
DENMARK	Marianne THYRRING Rune Carbuhn ANDERSEN (LTM)
ESTONIA	Taimar ALA (<i>arrival at 13:45</i>) Kai ROSIN
FINLAND	Jussi KAUROLA Sami NIEMELÄ
FRANCE	Marc PONTAUD (PAC)
HUNGARY	Gabriella SZÉPSZÓ (LTM)
ICELAND	Árni SNORRASON (<i>online from 14:00</i>)
IRELAND	Saji VARGHESE (STAC Chair)
LITHUANIA	Vida RALIENĖ Donatas VALIUKAS Renatas GUDELIŪNAS
MOROCCO	Abdelfetah SAHIBI Siham SBII (LTM)
NETHERLANDS	Werenfried Spit
NORWAY	Roar SKÅLIN
POLAND	Piotr SEKULA (LTM)
PORTUGAL	Nuno LOPES
ROMANIA	Florinela GEORGESCU (PAC chair) Lidia TEIANU Alexandra CRĂCIUN (LTM)
SLOVAKIA	Martin BENKO Chair

	Maria DERKOVA (CNA, LTM)
SLOVENIA	Jurij JERMAN (<i>late - online in the morning</i>) Neva Pristov
SPAIN	Javier CALVO
SWEDEN	Håkan WIRTÉN Bodil AARHUS ANDRÆ Eva STRANDBERG
TUNISIA	Hatem BACCOUR
TÜRKIYE	Erol AYDIN Alper GÜSER Yelis CENGİZ (STAC, LTM)
ACCORD PM	Claude FISCHER
ECMWF Observer	Andy BROWN
HIRLAM PM (obs.)	Jeanette ONVLEE
LACE PM (obs.)	
ACCORD CSS	Anne-Lise DHOMPS

Appendix II: regularization figures for 2023

Partners	Tasks compensated by ACCORD in 2023 (DAP2023)	Tasks completed in 2023	Amount to be reimbursed to ACCORD budget in 2024
ALGERIA	3 325€	2 125€	1 200€
BELGIUM	22 225€	17 475€	4 750€
BULGARIA	3 925€	925€	1 800€
FRANCE	125 715€	117 690€	8 025€
MOROCCO	4 250€	1 850€	2 400€
PORTUGAL	3 500€	1 700€	1 800€
TUNISIA	3 325€	0€	3 325€
TÜRKIYE	4 250€	3 650€	600€
AUSTRIA	4 850€	5 175€	-325€
CROATIA	10 300€	10 625€	-325€
CZECH REP	3 640€	4 380€	-740€
HUNGARY	3 325€	2 400€	925€
POLAND	9 800€	9 800€	0€
ROMANIA	3 925€	5 175€	-1 250€
SLOVAKIA	7 025€	7 025€	0€
SLOVENIA	6 100€	9 100€	-3 000€
total for LACE	48 965€	53 680€	-4 715€
DENMARK	13 050€	12 875€	1 375€
ESTONIA	16 715€	15 515€	1 200€
FINLAND	10 300€	8 675€	1 625€
ICELAND	1 200€	1 200€	0€
IRELAND	4 850€	3 650€	1 200€
LITHUANIA	2 400€	0€	2 400€
NETHERLANDS	12 975€	9 225€	2 550€
NORWAY	11 225€	9 100€	2 125€
SPAIN	6 840€	6 840€	0€
SWEDEN	14 900€	15 315€	-415€
total for HIRLAM	94 455€	82 395€	12 060€

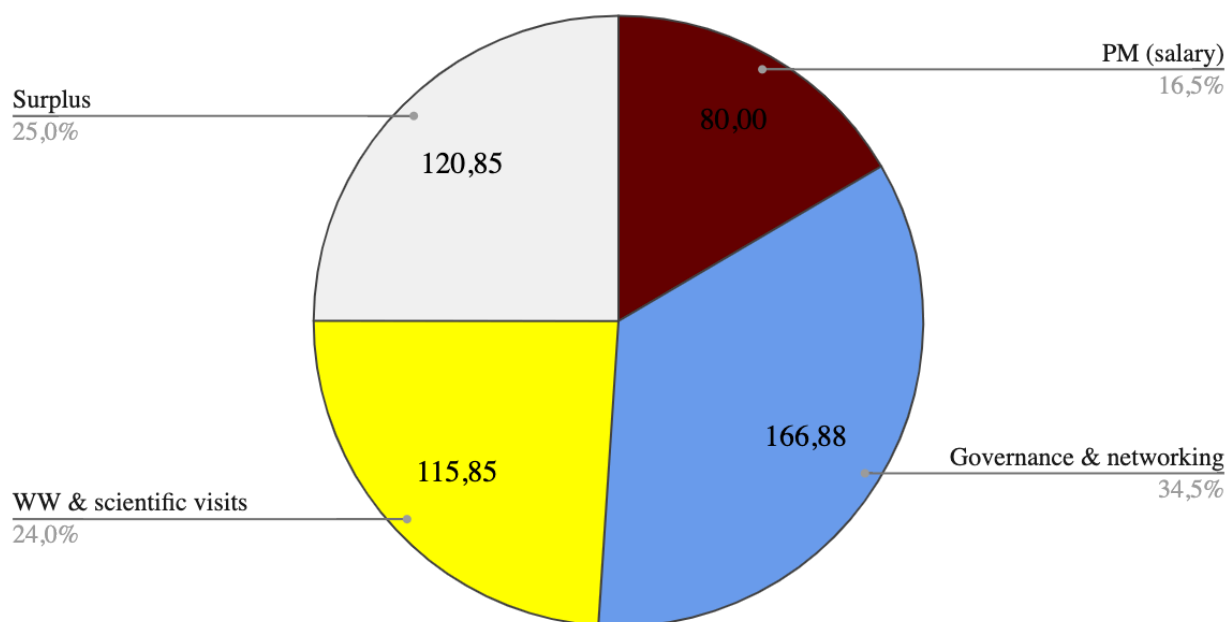
Appendix III: Partitioning of the budget 2024

Available budget for 2024

- same Membership fee as in 2023: 11 k€ per Member
- reserve at the end of 2023: 120.85 k€
- reimbursement by Members of 2023 non executed actions: 31.245 k€

Partitioning of the expenses

Proposed repartitioning of 2024 expenditures (k€)

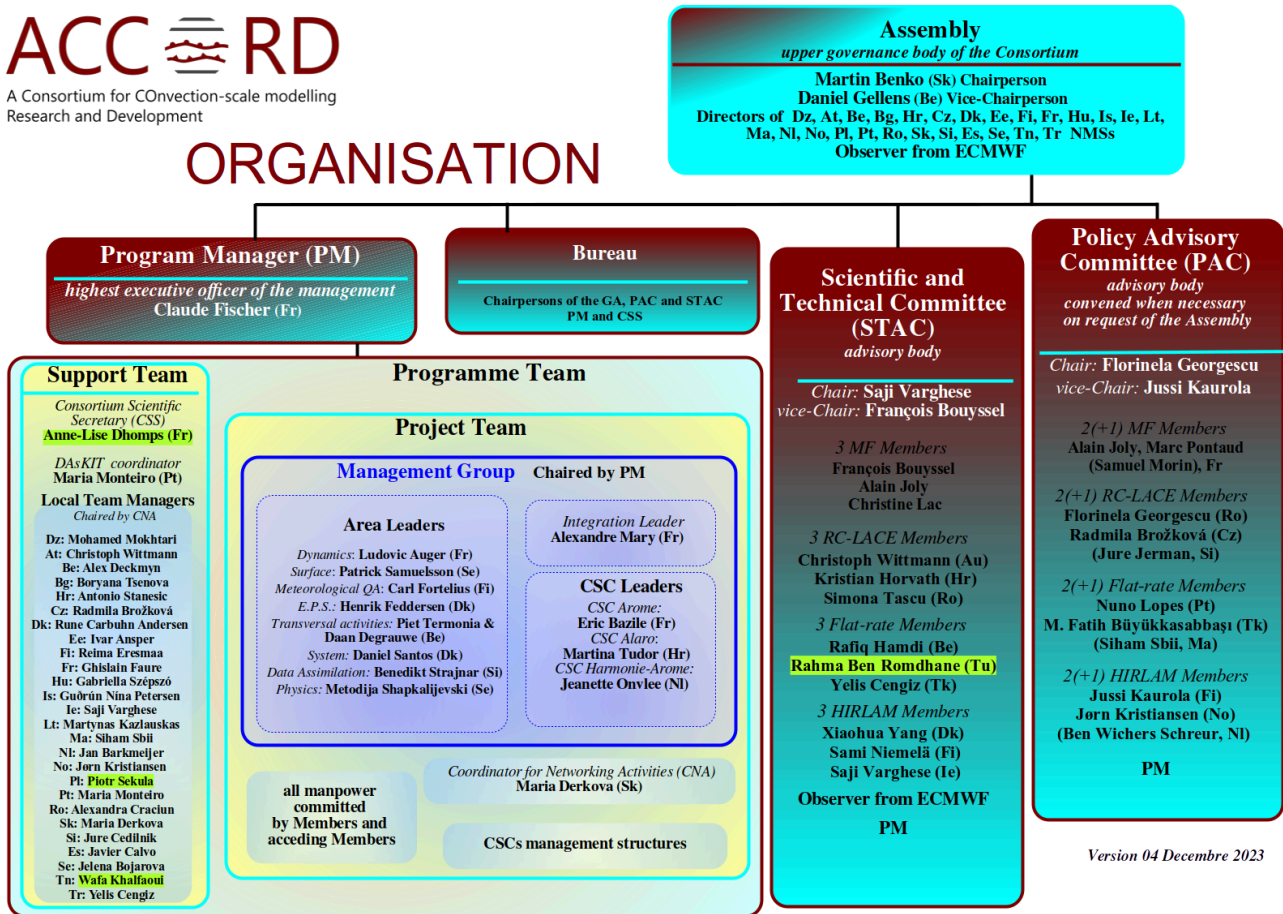


Appendix IV: ACCORD organisation chart



A Consortium for CONvection-scale modelling
Research and Development

ORGANISATION



Version 04 Decembre 2023

Appendix V: Events since the Assembly in July and 2023 (main) events¹

- **6th Assembly meeting, the 26th of June 2023, video-conference**
- MG: The Management Group resumed their every other Friday morning meetings on 25 August after the summer break. There was an in-person MG meeting on 28 September 2023 in Reykjavik (after the EWGLAM meeting) with the visit to IMO and another in-person MG meeting on 26 October 2023 in Brussels after the STAC+MG meeting.
- Bureau Regular meeting the 2nd Wednesdays of every month + an Assembly preparatory meeting.
- LTM meetings: 7th LTM meeting on 26 September 2023 in Reykjavik, besides EWGLAM, and the 8th LTM meeting on-line on 5 October 2023
- Working Days and Working Weeks during the second semester (besides the autumn surface WW, all WW/WD were organised as hybrid meetings) :
 - ACCORD DA WW, CHMI, Prague, Czech Republic, 11-15 September 2023,
 - Snow, SBL, fog and MUSC WW, Sodankylä, Finland, 18-22 septembre 2023
 - ACCORD Surface WW on multi-layer surface physics, Toulouse, France, 9-13 octobre 2023
 - DAVAĪ contributors-developers WW, RMI, Brussels, 23-27 October 2023
 - ALGO and new Observations WW, Sweden, 6-10 November
 - Autumn surface video working week, 20-24 November 2023
 - 3D-turbulence WD, Toulouse, France, 4-6 December 2023
 - TEB urban modelling, Netherlands, 4-8 December 2023
- EWGLAM/SRNWP meeting in Reykjavik (hybrid format), 25-28 September 2023, with LTM meeting on the 26th and MG meeting + visiting IMO on the 28th of September.
- ACCORD Governance meetings (*and external milestones*)
 - 13 September 2023: Bureau online meeting (update on ongoing discussions about AI/ML for NWP)
 - 03 October 2023: STAC online meeting
 - 10 October 2023: PAC online meeting (International collaborations)
 - 11 October 2023: Bureau online meeting (Membership, International collaborations...)
 - 25-26 October 2023 (2 half-days), Brussels (hybrid): STAC (RWP2022 report, RWP2023, Scientific Strategy, International collaborations...)
 - 13 November 2023: Bureau online meeting (HLQ for the next phase scientific strategy, Cooperation agreement with Latvia)
 - 23 November 2023: Bureau online meeting (preparation of the Assembly)
 - 13 December 2023: Bureau online meeting (actions from the Assembly)

¹ more events on ACCORD calendar: <http://www.accord-nwp.org/?ACCORD-MG-CSS-calendar>

- **7th Assembly meeting, the 4 December 2023, hybrid meeting (Reading)**

- Events until summer 2024
 - WD and WW to be organised in 2024 are currently discussed within the MG
 - MG regular video-meetings (every other Friday morning)
 - Bureau regular video-meetings the 2nd Wednesdays of every month
 - All Staff Workshop (with LTM meeting): Norrköping (hybrid), 15-19 April 2024
 - Strategy Workshop: 21-24 May 2024 in Toulouse
 - PAC meeting, if convened by the Assembly
 - STAC spring meeting (beginning of June 2024) online

- **Next Assembly meetings:**
 - **1rst week of July 2024 (online)**
 - **Beginning of December 2024 (in-person)**