

5th Assembly of ACCORD Partners

7 December 2022 14:30-18:00 CET & 8 December 09:00-12:00 CET

Darmstadt (hybrid)

Minutes

1. Opening and welcome

Marianne (Chair) opened the 5th ACCORD Assembly meeting and welcomed the 26 delegations, half-half in person and remotely (see <u>Appendix I)</u> and the ECMWF observer, Florence Rabier.

2. Adoption of the draft agenda

Marianne explained that the Bureau had worked with the PM to prepare this Assembly meeting. A large documentation had been distributed due to the rich scope of ACCORD. Marianne thanked the PM, the STAC, the PAC and the MG who makes sure on a weekly basis that the developments in ACCORD take place.

The agenda was adopted with three additional items: two AOB (recent ECMWF Call for informal expression of interest to participate in pilot projects on proposal by Saji; contact from the New Zealand NMS on proposal by Claude) and an item about communication concerning DEODE (added in item 3c, on proposal by Stefan).

3. Reporting on 2022

a. Report on RWP2022 and STAC recommendations

Claude briefly reported ¹on the realisation of the achievements of the Rolling Work Plan actions in 2022 and on the realisation of the manpower commitments. Claude showed short highlights on progress on working practices, on progress on using OOPS more widely in ACCORD, on the use of the SPP (Stochastic Parameter Perturbation) method in several EPS systems.

Claude added that ACCORD was able to hold the 2nd All Staff Workshop in a hybrid format in April 2022, and the same format will be kept for the 3rd ASW in Tallinn in March 2023.

The MG prepared a reporting document on the work in 2022 that had been proposed to STAC who formulated recommendations:

• STAC reviewed the work done in 2022 and discussed the progress report. STAC formulated the following specific recommendations:

¹ PM presentation (whole Assembly meeting): http://www.accord-nwp.org/IMG/pdf/pm assembly dec2022.pdf

- STAC recommends the Assembly to formally agree on the use of the source code forge implemented under Github.com;
- STAC reminds the importance of implementing the new working practices, and building the team of "DAVAI-contributors":
- STAC stresses the importance of SPTR and keeping up with the code adaptation of the spectral transforms, considers that the work on the preparation of the codes ahead of adapting them (to new architectures) requires an increase of staffing and careful planning;
- STAC recommends the Assembly to adopt the progress report.

The Assembly expressed its satisfaction on the progress made in ACCORD: Daniel pointed out the importance of the forge and of the technical work; Saji appreciated the progress on the common platform and the progress in working practices and training; Jure underlined the importance of all these projects for the Partners. To answer Stefan's remark, Claude precised that the ACCORD common code GIT-project inside the forge remains "private" and will only be available for the teams involved in the ACCORD RWP. In general, the use of Github does not automatically imply that we are moving towards open source.

The Assembly approved the 2022 progress report². The Assembly took note and supported the use of the ACCORD source code forge implemented under Github.com.

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

b. ACCORD roadmap and the white paper on R2O/O2R

Claude introduced two new management documents prepared by the MG:

- the (MG-)Roadmap is a complement to the Strategy (long term) and the RWP (yearly updated) that contains goals and milestones per Area;
- the White paper on R2O and O2R that tries to make more explicit where the MG sees the current border between ACCORD common R&D and bridging tasks towards local implementation of the codes; the document contains a few concrete actions proposed by MG on 3 topics (technical and meteorological QA (testing), users' feedback, documentation).

The STAC was presented with these documents and made the following recommendations:

- STAC expresses its support to the roadmap and to the white paper.
- STAC recommends the MG to report on the progress with the roadmap, taking into account the opportunities arising from DEODE.
- STAC encourages the MG to continue to work along the lines outlined in the roadmap and the white paper, and continue implementing the current proposals.
- STAC recommends the MG to regularly revisit the conclusions of the white paper and re-evaluate the current border of R2O and O2R taking into account the future evolution, needs and new opportunities of the consortium.
- STAC will follow the progress on the white paper proposals in its next meetings.

Marianne thanked Claude for tackling these topics which are important but complicated in the ACCORD community where there are different legacy working practices. Saji stressed the importance of working on these issues, as ACCORD is a very young consortium, subject to external

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² Approved "Execution of the RWP2022" document: http://www.accord-nwp.org/IMG/pdf/report_rwp2022.pdf

projects such as DEODE. STAC will continue to work with the MG to bring the ACCORD teams and families closer together.

In response to a question from Stefan on priorities, Claude listed as high priorities: continuing the momentum on the modernisation of the working practices; exploring documentation needs (together with ECMWF and Météo-France) with a possible proposal to STAC and then to Assembly, for ToR for a documentation officer; discussions on the organisation of some ACCORD level MQA actions. Radmila underlined the difficulty of this last point as there are different ACCORD configurations, covering a large territory in Europe, with different observations, different meteorological issues. Claude agreed that these are indeed difficulties which ACCORD needs to take into account, and perhaps not all wishful solutions really will be feasible. Nevertheless, ACCORD should continue to investigate what kind of common activity on MQA, a bit beyond what's today in the RWP, could be tried. The MG is not yet ready to make such proposals, therefore also the list of priority actions as drafted today might be felt to fall out short. This is simply where we are in our investigation.

The Assembly took note of the content of the Roadmap and the White Paper, and gave their full support to the next steps of implementation proposed by the MG, taking into account the recommendations formulated by STAC. The Assembly leaves it to the STAC and the Bureau to follow-up on the updates of these documents and will welcome the presentation of an executive summary of their new versions at a future Assembly.

c. Interaction between the DEODE work plans and the ACCORD RWP; recommendations from PAC and STAC

Both PAC and STAC had DEODE and its relation with ACCORD on the agenda of their respective meetings this autumn. PAC discussed how to account for the DEODE-funded manpower in ACCORD, and how to translate these figures into IPR and voting rights. STAC discussed the cross-analysis of the DEODE tasks and the resources for those work packages whose scope enters the ACCORD RWP.

The STAC also discussed the practical management link of DEODE with ACCORD and proposed:

- to engage proactively into informal meetings with DEODE/WP co-leads;
- the ACCORD/PM will stay in regular contact with the DEODE core MT;
- the PM would agree with the DEODE Lead Scientist on specific MG/MT meetings on arising matters of concern or of mutual interest.

Claude explained to the Assembly the recommendations by PAC:

- I. to monitor the DestinE-funded manpower within the Common Manpower Register (CMR) and the Rolling Work Plan (RWP), as proposed by the PM and the CSS, with adding a disclaimer in the CMR and in the RWP explaining that the manpower figures are not representative of decisions or actual figures from the DE_330 contracts, and that these figures only are meant for ACCORD-internal management purposes.
- II. to agree with the principle of redistributing the DestinE-subsisting IPRs (within ACCORD background IPRs) across all Members.
- III. to agree to redistribute these IPRs according to the DestinE-registered manpower falling within the scope of the ACCORD RWP, and following the provisions of Article 9 item 136 of the ACCORD MoU.
- IV. to agree that the proposals in items II and III are conditional to a positive decision by ECMWF (and EU) regarding the assignment back to ACCORD of subsisting IPRs.

The Assembly took note that the practical consequence of the above items is that ACCORD manpower figures to enter the voting rights would be without DE-funded figures, until a decision is made with ECMWF on the subsisting IPRs (this situation becomes relevant with Q3/2022).

As an order of magnitude, among the 183 F.T.E. committed by the Partners in the RWP2023 (see item 6a), 24 F.T.E. are DEODE-funded.

Marianne appreciated that DEODE is a good opportunity to push ACCORD forward and agreed that building up an extra organisation to coordinate between ACCORD and DEODE would not be necessary, with the management links proposed by STAC.

Daniel underlined the good spirit that had prevailed during the PAC meeting to arrive at the very logical proposal on manpower and IPR.

Florence congratulated ACCORD Partners for winning the tender with the DEODE proposal and was pleased to see the alignment of DEODE and ACCORD Work Plans. Regarding the assignment back to ACCORD of subsisting IPRs, MF as prime contractor should send a request to ECMWF, which will have to make a request to the EU on a case by case basis, for a precise deliverable.

Gerard congratulated the PAC and the PM for the proposed solution for manpower and IPR, and insisted that they be monitored carefully in the future, with simplification if possible.

Claude confirmed to Martina that the PAC had recommended that the DEODE-funded manpower should be taken into account when estimating Members' contributions to the ACCORD RWP effort, including for "Code Engineering phasing Quality Assurance" (the MoU foresees a minimum of 1 FTE to be devoted by each Member to the CEpQA work).

The Assembly approved the proposed recommendations by PAC on how to deal with the manpower and the IPR with respect to DEODE.

The Assembly supported the recommendations made by STAC to set in place informal exchanges at the level of the management of ACCORD and DEODE, for the benefit of both projects (at the levels of management group members, at the level of PMs).

AOB on communication about DEODE: Stefan and other Assembly Members expressed their concerns about the DEODE communication process (press, website, tweets, ...): communications proposed by Members have to be submitted to Meteo-France, which has to submit them to ECMWF, which has to submit them to the EU. The NWP community is used to a more simple and trustful process for communication.

Florence explained that the bureaucratic process is imposed by the EU. Using the word "DEODE" externally is absolutely forbidden. For the first phase, the EU wants to control all communications about Destination-Earth (as the EU did at the beginning for Copernicus). ECMWF has to follow EU rules for DEODE (actually then named "DE_330"), and could ask for a relaxed framework in the next phase. Florence proposed that ECMWF works on guidelines to explain to Members' how they should communicate.

The Assembly asked Florence and Marc to keep an eye on any possibility of relaxing this strict framework and instructed the PM to keep in contact with MF and ECMWF and to propose this item on the agenda of the next Assembly.

d. Outcome of WG-interoperability

i. physics interoperability roadmap proposal

The WG on Physics interoperability was decided by the Assembly in March 2021 in order to draft a roadmap for enhancing the interoperability across the Physics codes available in ACCORD. Claude presented the Assembly with the outcome roadmap and its proposals:

• organization: implement WPs and organize the actual work in physics by thematics (WWs, online meetings ...); this already is reflected in the RWP2023;

- codes: strong link with SPTR/code refactoring;
- scientific challenges ahead of us: physics evaluation for VHR confs, 3D effects, link with probabilistic forecasting, ML tools

STAC formulated the following recommendations:

- STAC recommends to make more explicit in the roadmap and the ToR of the Physics AL position, the importance of taking into account the stochastic aspects of physics processes and the link of physics parametrizations with ensemble prediction and ensemble assimilation.
- STAC expresses its support to the "roadmap for Physics interoperability" and recommends the Assembly to approve the roadmap.

Radmila missed in the roadmap the definition of interoperability in physics. Claude explained that the WG had been working on a definition and proposed to add the following definition to the document: having teams working together at different levels of the code and having exchanges at the level of scientific topics; facilitating teams to work more together at the level of topics rather than at the level of codes.

Radmila pointed out that interfacing of the parametrizations is presented only as a code issue, but that care should be taken to overhaul the interface with the dynamic.

The Assembly approved the Physics interoperability roadmap, with Radmila's comments and the addition of the Working Group's definition of the physics interoperability in the roadmap (in two or three sentences).

ii. opening of the Physics AL position

The position of the Physics Area Leader was opened along with the other MG positions in the beginning of 2021, however no candidacy was received. An important goal of the ACCORD Strategy nevertheless was to make proposals on how to enhance the interoperability in the Physics Area (see item 3d.i). The PM and the WG elaborated on the draft Terms of Reference for the Physics Area Leader along the proposals in the Physics interoperability roadmap.

STAC formulated the following recommendations:

- STAC recommends to make more explicit in the roadmap and the ToR of the Physics AL position, the importance of taking into account the stochastic aspects of physics processes and the link of physics parametrizations with ensemble prediction and ensemble assimilation.
- STAC recommends to make explicit the need for the Physics AL to coordinate the work on stochastic aspects with the EPS AL.
- STAC recommends the Assembly to also approve the text of the Call and the ToR of the Physics Area Leader position, and to open the position (assuming that the roadmap is accepted beforehand).

The specific recommendations formulated by STAC were taken into account in the version of the Call presented to the Assembly in preparatory document 3d.ii.

Claude added that the WG would propose additional guidance in the physics roadmap (as per the decision on 3.d.i), the MG would take them into account, but Claude proposed not to change the ToR of the Physics AL.

The Assembly mandated the PM to add the right sentences in the physics roadmap and approved the opening of the Physics Area Leader position.

4. MF: status and plans³

Marc explained that Météo-France is pursuing its strategy of evolving the NWP suite along the periode 2022-2025(-26), in link with the life of its new HPC from February 2021.

In 2022, major evolutions have been achieved: improvements in Arpege physics; ensemble forecast resolutions aligned with the deterministic forecasting. The next steps (2023) will be the transfer of all assimilation configurations to OOPS and the adoption of the 3DEnVar techniques for AROME instead of 3DVar. In 2024, the assimilation for Arome will switch to 4DEnVar (increase in the number of assimilated observations, with IRS on MTG-S).

The upcoming 48T1 e-suite will implement the 3DEnVar assimilation for AROME with encouraging first results (improved intensity and location of heavy rainfall; stability of the forecast w/r to the different networks). Solar eclipses will be included in ARPEGE and AROME, with a first positive experiment with Arpege (solar eclipse of the 25th October 2022). A key point is also the assimilation of mode-S data in AROME with a significant increase in assimilated data and a good coverage of Western Europe. The introduction of the mix-simple precision calculation saves 35% of the computational costs (and could offer a possibility to increase the number of AROME-EPS members).

Considering the future, and the renewal of the current HPC, Météo-France is preparing RAPS (end 2023) and benchmark (end 2024) with ARPEGE and AROME. The objectives are to set up codes ready for scalar, vector and accelerated (GPU) HPC architecture, maintaining the current very good performances on vector and scalar architecture and providing a usable and promising version for GPU. The key point of the process is a two-fold action:

- first a high level and generic reorganisation of the code, which is the major step of the process;
- second, from this single high-level code, being able to generate targeted versions of the code for scalar, vector or GPU architecture.

Météo-France has greatly appreciated the coordination and cooperation on this process within the ACCORD community and with ECMWF. This is a new shared code organisation and a new collaborative and fruitful framework.

Marc also thanked the ACCORD partners who had helped prepare the DEODE proposal and pointed out that the call for tenders for the second phase was coming.

In response to Stefan, Marc explained that Météo-France is assimilating FY-3C and FY-3D chinese satellites, but not yet FY-3E as it is not accessible in the Eumetsat repository.

5. ECMWF: status and plans⁴

Florence presented ECMWF developments taking place in the last year. The highlight of the period was the full move of operations from Reading to Bologna, including the migration of the archive, in October-November. The skill of the model has continued to increase and there are promising results for Cycle 48r1 which will be implemented in 2023, with a 9km medium-range ensemble, and a large upgrade of the extended range (100 members, running every day). ERA5 back extension from 1940-1958 has been completed.

Collaboration between ECMWF and WMO led to the production of the first joint State of the Europe Climate, which was launched in November 2022. Following the launch of the EU initiative

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³ Pesentation by Marc Pontaud: http://www.accord-nwp.org/IMG/pdf/ag_accord_20221208_mf.pdf r

⁴ Pesentation by Florence Rabier: http://www.accord-nwp.org/IMG/pdf/accord-ecmwf december 2022.pdf

Destination Earth, the first major Destination Earth contracts have been issued, including the one with members of ACCORD. Progress is ongoing on using satellite data over all surfaces, including over ocean, to improve the assimilation of the coupled system. Also, work prepares the use of MTG-I, particularly the lightning imager. A lot of work is ongoing in adapting the code for future hybrid architectures with the Hybrid 2024 project and the collaboration with Switzerland for the Finite Volume Module code using the GT4Py tool. The delivery of open data has recently increased. Some open data are also delivered through Microsoft Azure, and soon Amazon Web Services. Finally, a MOOC on Machine Learning in Weather and Climate will start in January, with more than 4000 registrations for the first Tier 1 of this course.

Florence announced that there has been a small change into the IFS/ARPEGE agreement, in order to acknowledge ACCORD (instead of ALADIN-HIRLAM).

In response to Stefan, Florence answered that ECMWF is evaluating a test dataset for FY-3E (with a promising impact, exceeding FY-3D impact). The timescale for operations is not yet defined.

6. Plans for 2023

a. RWP2023 actions & Manpower commitments for 2023

Claude gave some statistics on the manpower committed by the teams in the RWP2023. Claude pointed to an increase in SPTR and several other areas, and a decrease in "common activities" WPs (that could be partly linked to the changing work practices). Claude illustrated the impact of DEODE on the committed manpower:

- SPTR is largely increased by DEODE, however this increase has two components: funding of current staff (allocated to some DEODE tasks) and recruitment
- WP towards VHR configurations ("HR") also is increased
- the rest of ACCORD-relevant DEODE-funded manpower spreads over a range of WPs (in coherence with the analysis presented in item 3c)
- 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 further mentioned that the MG would like to organize visits or online discussions to/with some member countries (to start in 2023).

To save time, Claude gave only some very short headlines from RWP2023 on modernization of working methods, on code adaptation and on code releases. Saji added that ACCORD has clear and ambitious Work Plans, fuelled by the DEODE projects, and is progressing well thanks to good leadership from the MG and PM. STAC reviewed the draft RWP2023 in its meeting on 3-4 November and recommended the Assembly to adopt the RWP2023.

In response to Taimar and Daniel's comments, Claude explained that the MG monitors the commitments made by the LTMs. The MG and the co-leads discuss the content of the RWP with the teams, ensure that the teams adhere to it, and liaise with the LTMs, trying to attract staff to specific priority topics (i.e. building a small team around the Integration and the System Leaders, maintaining the new tools, working on code adaptation topic).

The Assembly approved the RWP2023⁵ and supported the PM and MG to realise this RWP2023.

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⁵ Approved TWP2023: http://www.accord-nwp.org/IMG/pdf/rwp2023_adopted.pdf

b. LAM spectral transforms code and possibility for an open source distribution

Claude explained that, in order to greatly facilitate the common work and the collaboration with ECMWF on the code adaptation of the spectral transforms to new HPC architectures (part of the SPTR work plan), the LAM spectral transform codes should be added to the ECMWF open source code repository, thus declared as open source following the APACHE-2 licence.

STAC in its meeting on 3-4 November considered that the benefits of open source, for this particular piece of code, outweigh the risks, and on the basis of the scientific and technical considerations, recommended the Assembly to approve an open source licensing of the LAM spectral transform codes shared in ACCORD.

Many Members supported the approval of the open source declaration of this component of the code. Florence confirmed that ECMWF had decided to take a stepwise approach by only proposing individual components for release as open source (such as spectral transform, ecrad, the cloud scheme, OOPS, the new dynamical core, ...).

Claude confirmed that no additional resources would be needed to support the users of the LAM spectral transforms: ACCORD staff will work with ECMWF and MF people, and the testing of the spectral transform codes is part of the work that needs to be done anyway for the code adaptation.

The Assembly approved the open source declaration of the LAM spectral transform codes under an APACHE-2 licence.

7. Budgets

a. Realisation of the DAP2022

The PM and the CSS finalized the costed Detailed Action Plan (DAP2022) in accordance with the ACCORD MoU rules, the decisions of the 3rd ACCORD Assembly, based on the Rolling Work Plan 2022 (proposals for WW and scientific visits by the MG, with exchanges with the LTMs and the teams). Not all ACCORD actions are funded by ACCORD, nor all participants to the ACCORD WW/WD (the MG worked on guidelines on how to prioritize among the demands and shared them with the LTMs). The signed DAP2022 was published in March, with additional actions decided in the course of the year (until the beginning of the autumn) in order to allow more flexibility.

In 2022, 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 2022 presented in the preparatory document 7.

The Assembly formally approved the regularization figures for 2022 (<u>Appendix III</u>: amount to be reimbursed by, respectively to, Members in 2023 for non-executed, respectively additional, actions in 2022).

b. Budget for 2023

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

- "governance" expenses (216kE), including PM salary compensation, short missions of PM & CSS, short missions to one STAC meeting (PAC online only), one-week mission for the LTMs and MG at the ASW (March) and at EWGLAM (September), ASW organisation costs;
- R&D actions on the DAP (Working Weeks organisation and travel, and Scientific visits): same level of funding as was planned in 2022 for the scientific visits and same as realized in 2023 for the WW/WD (112kE).
- ACCORD is not refunding the expenses at real cost but on the basis of the compensation rates that were defined during the kick-off Assembly for the whole MoU duration.

Taking into account the reserves and the regularization figures for the 2022 actions (see item 7a), this leaves a surplus of 152kE in the 2023 budget.

As ZAMG takes care of the financial arrangements between LACE Members and ACCORD, a new convention between MF and the successor of ZAMG (new Austrian NMS agency) might be needed (the Austrian law explains that all agreements signed by ZAMG are valid for the new Austrian NMS agency - the ZAMG delegation will send appropriate legal details to MF - MF would take all appropriate steps if it considers the provisions in the law to be insufficient).

Marianne thanked Météo-France, ZAMG and KNMI for taking care of the financial arrangements for ACCORD.

The Assembly approved the Membership fee for 2023: 11kE per member. The Assembly approved the partitioning of the budget (see Appendix IV).

8. Governance and management:

a. Changes in MG, LTM, ST

Two Area Leader positions in the ACCORD MG are currently vacant. The recently launched Call for application for the DA AL position received no candidacy under its initial provisions. The Physics AL position is empty since the start of ACCORD (see also item 3d in the agenda).

i. DA AL

Claude proposed to reopen the Call with additional flexibility in the conditions (allowing a pair of applicants from different institutes to prepare an application together).

The Assembly agreed to make the conditions in the Call for the DA/AL(s) more flexible and to reopen the Call within a similar timeframe to that of the Physics AL.

The Assembly took notice of the risk and mitigation analysis, and that the absence of (a) DA/AL(s) would necessarily imply a sub-optimal management of the DA Area (in terms of strategy implementation, overall coordination in the Area, international visibility of ACCORD).

The Assembly instructed the PM to be proactive in the recruitment process. Claude had already approached staff informally. He proposed to organise information meetings with DA teams and co-leads. Patricia will also provide a framework for people from two different institutes to meet, discuss and prepare a co-application.

Assembly Members are invited to motivate people and look for good candidates within their teams.

The PM suggested organizing the DA Area in coordination with the MG and WP co-leads, and with the Bureau (for the mandate), should no candidate(s) be found or be ranked. Information on the outcome of such an organization would be provided to STAC in due time.

ii. Physics AL

Claude proposed to open the Call according to the decision in item 3d.ii of this Assembly meeting. The Assembly decided to open the Physics AL position with the same flexibility, timing and proactivity as for the DAAL position: information meetings with Physics teams and co-leads.

The Assembly agreed to instruct the PM to take any other appropriate action to organize the Physics Area, in close coordination with the Bureau, should no adequate candidacy be received (the alternative organization should also be presented to STAC).

The Assembly took notice of the risk and mitigation analysis, and f the fact that the absence of (a) Physics/AL(s) would imply that the management of the Physics Area will necessarily be suboptimal (in terms of strategy implementation and interoperability roadmap, overall coordination in the Area, and future challenges).

Assembly Members are invited to motivate people and look for good candidates within their teams.

iii. Support Team

- The CSS position will have to be staffed by mid-2023. Marc explained that Météo-France would open the position within its administrative procedures. If there is no candidate, the position could be open to other Partners. Patricia is playing a key role in the building of the consortium: she prepares management documents, participates in all management meetings, monitors the manpower, supports the MG and the PM, takes care of the communication (website, newsletter, ..). Patricia can organise information meetings with possible candidates to explain the CSS role.
- The opportunity to define and open a position of Documentation Officer (on a part-time basis) will be assessed in 2023 if so, ToR's will be drafted taking into account the outcome of discussions on documentation and perhaps some other Support Team needs.
- The MG will look out for a new Wiki solution, and this may raise the need for a Wiki manager position (on a part-time basis).

The Assembly took note of the leave of P. Pottier by mid-2023, and the consideration by MF to open the position within its internal administrative procedures (the Assembly will be kept informed of the outcome via the Bureau).

b. Nomination: PAC, STAC

STAC members are designated by the Assembly for a two year period, renewable. Each family was contacted in order to confirm or propose their new representatives. The proposed composition of PAC and STAC for the coming two years is displayed in this table:

Family	PAC Members	STAC Members	
Flat-Rate ALADIN MoU5 Members	Nuno Lopes (Portugal)	Rafiq Hamdi (Belgium)	
	Mehmet Fatih Büyükkasabbaşı (Turkey)	Haythem Belghrissi (Tunisia)	
	Siham Sbii (Morocco)	Yelis Cengiz (Turkey)	
RC-LACE Members	Florinela Georgescu (Romania) CHAIR	Christoph Wittmann (Austria)	
	Radmila Brozkova (Czech Republic)	Kristian Horvath (Croatia)	
	Subs.: Jure Jerman (Slovenia)	Simona Tascu (Romania)	
HIRLAM-C Members	Jussi Kaurola (Finland) VICE CHAIR	Saji Varghese (Ireland) CHAIR	
	Jørn Kristiansen (Norway)	Xiaohua Yang (Denmark)	
	Subs.: Ben Wichers Schreur (Netherlands)	Sami Niemelä (Finland)	
Météo-France	Alain Joly	François Bouyssel VICE-CHAIR	
	Marc Pontaud	Alain Joly	
	Subs.: Samuel Morin	Christine Lac	

Marianne thanked the Committees members and their chairs for their important jobs.

The Assembly approved the nominations of members proposed for the PAC and the STAC, respectively, and the chairs and vice-chairs.

c. Election of the Chair and vice-Chair of the Assembly

Marianne explained that in order to allow some rotation, the Bureau proposed Martin Benko and Daniel Gellens as Chair, respectively vice-Chair of the ACCORD Assembly. Martin and Daniel accepted. The Assembly unanimously approved.

The Assembly approved these nominations and the proposed new organisation chart of ACCORD was adopted, valid from the 1st of January 2023 (see Appendix II).

9. Dates of 2023 Consortium events, including next Assembly

A list of ACCORD meetings since the last Assembly, along with the main scientific and management meetings planned in 2023 is given in <u>Appendix V</u>.

The Assembly mandated the Bureau to convene a PAC meeting before the next Assembly, should topics of interest arise by then (in link with Destination Earth for instance).

The Assembly decided on organising the next Assembly meeting as a virtual meeting during the week 26-30 June 2023 (the exact date will be defined with the Bureau).

The Assembly decided for a hybrid meeting at the end of the year 2023: Patricia will check the possibilities for a back-to-back meeting in Brussels (if ECMWF Council is confirmed in Brussels on 5-6 December, followed by EUMETNET Council on 7-8 December).

10. A.O.B

- Met Éireann would like to draw the attention of the ACCORD members on the recent ECMWF Call for informal expression of interest to participate in pilot projects on [reference to ECMWF Council document ECMWF/C/105(22)15], with a deadline early January:
 - 1. Adaptation to Emerging Technologies
 - o 2. IoT observations for NWP

ACCORD Members saw these pilot projects as a good opportunity to work together, and with ECMWF, although small countries would have difficulties in coping with all the interesting initiatives that are proposed. Marc added that Meteo-France is interested in participating but not in leading the initiative.

Claude expressed concern as to whether these pilot projects would require the same level of financial, managerial or legal issues as DEODE. Florence explained that Members and consortia could contribute but that ECMWF would like to have a leader (NMS or consortium) to whom ECMWF would delegate the money to. IPR would probably be discussed at some points. The administrative burden of these pilot projects should be much less than for DEODE. There will be a small ECMWF budget for these actions.

All ACCORD Members interested in the pilot projects should contact Claude who will organise a short video-meeting to discuss the possibility for these ACCORD Members to participate together.

• The PM has been contacted by a scientific consultant on behalf of the New Zealand NWS, which is currently reassessing its scientific and operational strategy for NWP. On request by the consultant, information about ACCORD agreements and scientific material has been provided and the PM is waiting for an answer from New Zealand. Roer sent email information to Claude and Marianne, pointing to the organizational model of the NZ Weather Service.

11. Closing

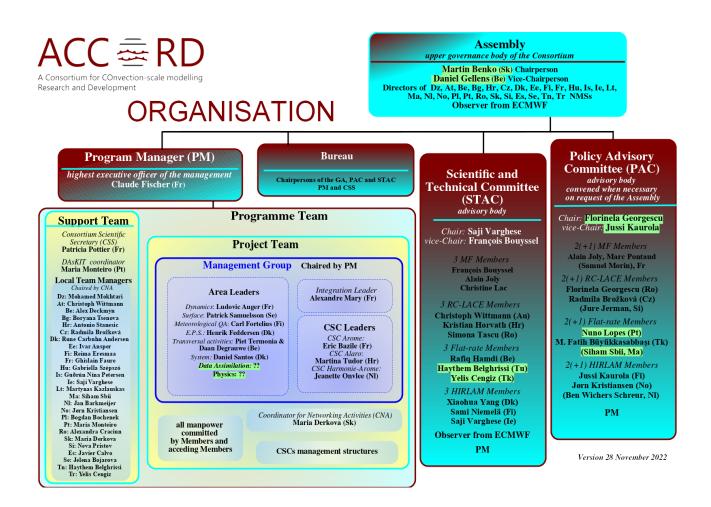
Marianne reiterated her satisfaction at the progress made in just two years of ACCORD's existence and congratulated the governance bodies, management and teams on this progress. Marianne asked Patricia to convey the Assembly's thanks to EUMETSAT for hosting the meeting.

Marianne thanked the members for an active Assembly and closed the meeting at 12:05.

Appendix I: Participants (in-situ, remote)

Member	Delegation	
ALGERIA	Mohamed MOKHTARI	
AUSTRIA	Gerhard WOTAWA, Andreas SCHAFFHAUSER	
BELGIUM	Daniel GELLENS (PAC chair)	
BULGARIA	Ilian GOSPODINOV, Kalinka TEGOVA	
CROATIA	Branka IVANČAN-PICEK	
CZECH REP	Radmila BROZKOVA	
DENMARK	Marianne THYRRING (chair), Rune Carbuhn ANDERSEN	
ESTONIA	Taimar ALA, Kai ROSIN	
FINLAND	Jussi KAUROLA (7 afternoon, 8 morning), Sami NIEMELA	
FRANCE	Marc PONTAUD	
HUNGARY	Gabriella SZÉPSZÓ	
ICELAND	Árni SNORRASON	
IRELAND	Eoin MORAN (7 afternoon), Saji VARGHESE (STAC chair), Sarah O'REILLY	
LITHUANIA	Otilija SNIEŠKAITĖ, Donatas VALIUKAS	
MOROCCO	Siham SBII	
NETHERLANDS	Gerard van der STEENHOVEN, Werenfried SPIT	
NORWAY	Roar SKÅLIN	
POLAND	Bogdan BOCHENEK	
PORTUGAL	Nuno LOPES	
ROMANIA	Florinela GEORGESCU, Alexandra CRACIUN	
SLOVAKIA	Martin BENKO (vice-chair)	
SLOVENIA	Jure JERMAN	
SPAIN	Pablo ORTIZ	
SWEDEN	Bodil AARHUS ANDRÆ, Stefan NILSSON	
TUNISIA	Hatem BACCOUR	
TURKEY	Yüksel YAĞAN, Yelis CENGIZ	
ACCORD PM	Claude FISCHER	
ECMWF Observer	Florence RABIER	
HIRLAM PM (obs.)	Jeanette ONVLEE	
LACE PM (obs.)	Martina TUDOR	
ACCORD CSS	Patricia POTTIER	

Appendix II: ACCORD organisation chart valid from 1/1/2023



Appendix III: regularization figures for 2022

Partners	Tasks compensated by ACCORD in 2022 (DAP2022)	Tasks completed in 2022	Amount to be reimbursed to ACCORD budget in 2023
ALGERIA	3 325€	2 400€	<mark>925€</mark>
BELGIUM	8 875€	7 475€	<mark>1 400€</mark>
BULGARIA	5 125€	4 525€	600€
FRANCE	117 175€	106 190€	10 985€
MOROCCO	2 400€	2 125€	275€
PORTUGAL	10 675€	4 250€	6 425€
TUNISIA	3 325€	0€	3 325€
TURKEY	4 850€	2 125€	2 725€
AUSTRIA	8 675€	6 175€	2 500€
CROATIA	19 500€	21 630€	-2 130€
CZECH REP	5 900€	4 600€	1 300€
HUNGARY	4 325€	4 325€	0€
POLAND	9 150€	2 125€	7 025€
ROMANIA	6 375€	4 475€	1 900€
SLOVAKIA	3 600€	3 325€	275€
SLOVENIA	19 025€	17 825€	1 200€
total for LACE	76 550€	64 480€	<mark>12 070€</mark>
DENMARK	16 025€	15 725€	300€
ESTONIA	9 800€	8 875€	925€
FINLAND	9 500€	9 225€	275€
ICELAND	2 400€	0€	2 400€
IRELAND	5 125€	4 425€	700€
LITHUANIA	2 400€	0€	2 400€
NETHERLANDS	7 100€	8 240€	-1 140€
NORWAY	14 600€	12 850€	1 750€
SPAIN	12 700€	12 700€	0€
SWEDEN	14 000€	11 275€	2 725€
total for HIRLAM	93 650€	83 315€	<mark>10 335€</mark>

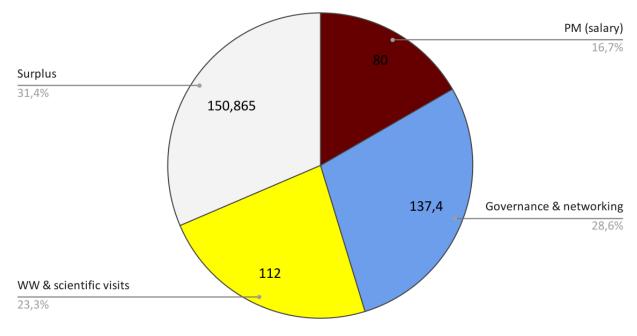
Appendix IV: Partitioning of the 2023 budget

Available budget for 2023

- same Membership fee as in 2022: 11kE per Member
- reserve at the end of 2022: 145.2kE
- reimbursement by Members of 2022 non executed actions: 49.065kE

Partitioning of the expenses

Proposed repartitioning of 2023 expenditures



Appendix V: Events since the Assembly in July and 2023 (main) events⁶

- 4th Assembly meeting, the 7th of July 2022, video-conference
- ➤ MG: The Management Group resumed their every other Friday morning meetings on 19 August after the summer break with the first in-person MG meeting on 30 September 2022 in Brussels (after EWGLAM meeting); additional meetings are dedicated to the preparation of the DAP2022, the preparation of the RWP2023, the reporting of RWP2022, ...
- ➤ LTM meetings: 5th LTM meeting on 27 September 2022 in Brussels (first in-person meeting), besides EWGLAM, continued on-line on 5 October
- ➤ 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 & RC-LACE/DAsKIT working days 2022, 19-22 September 2022, Romania
 - Cloud-radiation-aerosol WW, CHMI, Prague, 10-14 October 2022
 - o 3D Turbulence working week 2022, Vienna, ZAMG, 12-14 October 2022
 - Harmonie-Arome CSC code refactoring WW, Met Éireann, Kilkeny, Ireland, 24-28
 October 2022
 - 4th ACCORD DA working week (new observations and OOPS), DMI, Copenhagen, Denmark, 7-11 November 2022
 - ALARO WW / code adaptation, refactoring, data structures, 7-11 November 2022, CHMI, Czech Republic
 - o DAVAÏ contributors-developers WW, DMI, Copenhagen, 21-25 November 2022
 - Autumn surface video working week, 21-25 November 2022:
- ➤ EWGLAM/SRNWP meeting in Brussels (hybrid format), 26-29 September 2022, with LTM meeting on the 27th and MG meeting on the 30th of September.
- ➤ ACCORD Governance meetings (and external milestones)
 - o 22 August 2022: DestinE dedicated Bureau meeting
 - o 5 October 2022: Bureau meeting (MG positions)
 - 11 October 2022: PAC convened by the 4th Assembly to make recommendations on how to account for DEODE-funded manpower in ACCORD
 - 3 afternoon 4 morning November 2022, Copenhagen (hybrid): STAC (RWP2022 report, RWP2023, impact of DestinE on ACCORD RWP, ...)
 - 16 November 2022: Bureau meeting (governance positions)
 - o 17 November 2022: Bureau meeting (preparation of the Assembly)
 - 28-29 November 2022: DA areal leader selection committee
- 5th Assembly meeting, the 7 December 2022 afternoon & 8 December morning, hybrid meeting (Darmstadt)

⁶ more events on ACCORD calendar: http://www.accord-nwp.org/?ACCORD-MG-CSS-calendar

• Events until summer 2023

- WD and WW to be organised in 2023 are currently discussed within the MG
- MG regular video-meetings (every other Friday morning)
- Selection committee meetings for DA and Physics ALs, if relevant
- o All Staff Workshop (with LTM meeting): Tallinn (hybrid), 27-31 March 2023
- o MG in-person meeting: 1 day in April
- PAC meeting, if convened by the Assembly (by mandate to the Bureau)
- STAC spring meeting (end of May or very beginning of June 2023)
- One or two Bureau meetings until the next Assembly meeting

• Next Assembly meetings:

- o virtual meeting during the week 26-30 June 2023 (t.b.d. by Bureau)
- o hybrid meeting, possibly in Brussels, in December 2023, t.b.c.