Call for Application to the positions of Area Leaders (AL) of the ACCORD consortium.

July 2025

Since the 1st of January 2021, twenty-six National Meteorological Services from Europe and the Mediterranean Area have joined forces in the single R&D ACCORD Consortium, under the first Memorandum of Understanding – MoU1 covering the period 2021-2025. The consortium is currently finalizing the revision of its Memorandum (MoU2) and the organization of the next phase to cover 2026-2030.

As a first important step for this next phase, the Members have adopted an ambitious 2026-2030 Scientific Strategy outlining their objectives in meteorological and computer science for this horizon.

The development of the common codes will continue, in order to support world-leading operational NWP suites operated by the Members, with a priority on high resolution (from kilometre to hectometre grid size), short-range (including nowcasting suites) and high-impact weather. The codes and options therein are currently grouped in three "Canonical System Configurations" (CSC AROME, ALARO and HARMONIE-AROME). The Consortium will continue to strive to increase interoperability, transversal activities and joint R&D work across the CSCs. It will also work to make the codes portable and efficient on various computer architectures, in order to cope with the rapid evolution of HPC systems and encourage maximum competition in procurements of the Members. ACCORD has set for itself the goal to design a common development environment, beyond the achievements of phase 1, and it has defined ambitious goals toward common meteorological quality assurance. ACCORD intends to explore hybrid AI-ML/physics-based approaches and establish ways of collaborating with European initiatives in this rapidly evolving domain.

The human resources provided by the Members for this work represent approximately 150 FTE. These staff are employed by the Members and work at their premises, but meet and interact regularly. All aspects of the work are coordinated internationally by a Management Group. The list of officers is as follows:

- 1 Programme Manager (the "PM")
- 3 CSC Leaders
- 1 Integration Leader
- 8 Area Leaders
- 1 Scientific Secretary
- 1 Documentation Officer
- 1 Coordinator of Network Activities

The Consortium will appoint the majority of these officers via calls for applications.

The present Call concerns the Area Leader positions.

The Area Leaders work under the leadership of the PM on the implementation of the Strategy. In accordance with items 100-102-103-106 of the MoU, the Area Leaders are responsible for the modernization of the code and working methods, which should lead to increased modularity and interoperability across CSCs. The list of the 8 Area Leader positions and the terms of reference of each position are presented below.

In their activity, the Area Leaders will respect the continuity of the CSCs. However, Area Leaders are not responsible for the specific implementation of the scientific developments in each CSC, that remains the responsibility of the CSC leaders.

Each Area Leader function is corresponding to a minimum commitment of 0.5 FTE and is delivered by one Consortium Member. Applications are required to be sent as personal application by one staff (the Applicant), with backing from the Member institute employing the staff. The MoU foresees the possibility that the whole Area Leader commitment can be split among the Applicant and one supporting person from the same employer. In the case where the personal manpower commitment of the Applicant remains lower than 0.5 FTE, an explanation about how the function is proposed to be fully occupied must be provided (name of additional staff, total manpower commitment reaching 0.5 FTE, organization of the tasks within the function). However, a single personal application fulfilling the whole function will receive a higher priority in the ranking and selection process (see below).

Eligibility conditions to apply

- You must have a higher education in meteorology or computer science and a demonstrable experience in working on NWP operational suites or similar IT systems. An experience in international collaboration would be an advantage.

- Your application must be supported by one National Meteorological Service Member of the Consortium, who is already your employer or commits to become your employer if you are selected for the job. Salary and other aspects of the position must be discussed with this Member.

- Good knowledge of English.

Calendar and selection process

The deadline to apply to the present call is **7th of October 2025**.
Interviews will be organized in the following weeks.
Appointments will be announced as soon as possible thereafter.

How to apply:

- Applications (including references, C.V. and motivation letter) must be sent to Mrs Anne-Lise Dhomps, Météo-France, Consortium Scientific Secretary: css@accord-nwp.org .

- A letter of support should be provided by the Director of the National Meteorological Service who employs/will employ the applicant if selected.

- Further questions can be asked to Mrs Anne-Lise Dhomps.

Selection process:

The applicants will be interviewed by a selection panel composed of the PM, the 3 CSC Leaders, the chairs of STAC and PAC and the CSS. The selection panel will rank the applications per Area, taking into account the way the function is proposed to be fulfilled (eg. single versus multiple staff proposal), the level of expertise, the interpersonal skills of candidates, the coherence of the vision and motivation of the Applicant with respect to the strategic goals and ToRs of each Area Leader function.

The final definition and the attribution of the Area Leader functions will be done by the Assembly. The Assembly will attribute all Area Leader functions simultaneously, taking care of geographical balance.

Personal skills:

- Excellent knowledge of the state-of-the-art scientific issues in their field of responsibility.
- Recent scientific publications, technical notes or participation in the coordination of activity in their field would be an advantage
- Good knowledge of cross-cutting scientific issues in other fields of activities of R&D in the Consortium
- Good knowledge of the code modernization and interoperability aspects in their field, or a firm intention of concern and participation in these aspects
- Good knowledge of the ACCORD NWP codes, including the process of building new code versions and the related challenges (or a firm will to be in touch with these issues)
- Good communication in an international context
- Ability for team work

The general and specific Terms of Reference for the 8 Area Leaders are provided hereafter.

The Terms of Reference of the Area Leaders in the MoU-2 read as follows:

The Area Leaders (see item 100) are responsible of implementing item 29 and :

i. whenever possible, lead the corresponding area, that is define a long term scientific and architectural vision for the modernisation of the code, including normative aspects, increased modularity and interoperability and take full responsibility of the delivery of the corresponding developments,

ii. plan and coordinate the annual activities with an emphasis on promoting cross-consortium common work, cross-area transversal and high priority topics,

iii. or otherwise, conducting specific actions on CSC interoperability, as decided by the Assembly and for a limited duration.

Area Leaders are not responsible for the specific implementation of the scientific developments in each CSC, that remains the responsibility of the CSC leaders.

The intention is to generalise the situation (i)-(ii) with time.

The Area Leaders provide input for all documents prepared under the responsibility of the PM for the governance bodies.

The Area Leaders also contribute to the preparation of the Strategy documents when

needed.

The Area Leaders may be called by the PM to make presentations to the governance bodies in their area of expertise.

The Area Leaders attend the meetings of the MG. For their evaluation of scientific novelty and implementation in the common codes, they will take into account the desired synergies between the three CSCs, their interoperability and ultimately reduction of number.

General ToRs valid for all AL positions (Contribution of 0.5 FTE per position)

In addition to the Area Leader own ToRs (see below), each Area Leader function includes the following tasks:

- provide, as required in the Area, an active support in the monitoring of code contributions and the organization of code integration under the responsibility of the Integration Leader.
- provide support (by providing expertise and/or drafting tasks) for defining appropriate setups for very high resolution, very short range NWP solutions and nowcasting. The solutions potentially encompass the forecast models, upper-air and surface DA, or any other initialization methods, as well as the evaluation of these configurations. The potential benefit of AI/ML tools shall be taken into account when felt relevant.
- leverage the benefits of a common scripting system across all CSCs and areas.
- propose an organization of the scientific documentation of the code in the area; provide the relevant support to the Documentation Officer for organizing the work in order to maintain it.
- propose training and knowledge transfer activities in the area and provide support for their organization.
- remain open to (sometimes rapidly) emerging scientific ideas and technology, such as AI/ML, and be ready to analyze their benefit for ACCORD and the potential impact on the RWP and the Scientific Strategy.

The specific Terms of Reference of each Area Leader are listed hereafter.

Area Leader of Dynamics (Length of mandate: 5 years)

The AL for Dynamics will lead the area, plan and coordinate the annual activities, with the aim of implementing the Scientific Strategy in his/her Area. In addition, he/she shall pay particular attention to the following transversal activities:

- the dynamics/physics interactions and the related code interface
- the coupling of earth system components
- process-oriented validation and the link with the MQA-Infrastructure
- the design of new scientific options in the context of an evolving code (dynamical cores, data structures, time stepping and model diagnostics)

He/she shall implement as relevant for his/her Area the tasks described in the first subsection General ToRs valid for all Area Leader positions.

Area Leader of Upper-air Physics (Length of mandate: 5 years)

The AL for Upper-air Physics will lead the area, plan and coordinate the annual activities, with the aim of implementing the Scientific Strategy in his/her Area. He/she shall pay particular attention to the following transversal activities:

- the dynamics/physics and the physics/surface interactions, and the related code interfaces
- the coupling of earth system components
- process-oriented validation and the link with the MQA-Infrastructure
- common 1D single column model
- inline diagnostics and postprocessing
- organize research grouped around physics processes, like turbulence, radiation, microphysics etc.

He/she shall implement as relevant for his/her Area the tasks described in the first subsection General ToRs valid for all Area Leader positions.

Area Leader on Surface (Length of mandate: 5 years)

The AL for Surface will lead the area, plan and coordinate the annual activities, with the aim of implementing the Scientific Strategy in his/her Area. He/she shall pay particular attention to the following transversal activities:

- the surface/physics interactions and the related code interface
- the interaction with the SURFEX community
- the coupling of earth system components
- process-oriented validation and the link with the MQA-Infrastructure
- the definition of appropriate model settings for very high resolution (hectometric) configurations
- coupled data assimilation and the link with upper-air DA

He/she shall implement as relevant for his/her Area the tasks described in the first subsection General ToRs valid for all Area Leader positions.

Area Leader in Upper-air Data Assimilation (Length of mandate: 5 years)

The AL for Upper-air Data Assimilation will lead the area, plan and coordinate the annual activities, with the aim of implementing the Scientific Strategy in his/her Area. He/she shall pay particular attention to the following transversal activities:

- the link with EPS and probabilistic forecasting
- the use of observations for process-oriented validation
- coupled data assimilation and the link with surface
- the developments in other areas that can affect DA (like two moment microphysics affecting an observation operator)
- continue the work on initialization methods that reduce the model spin up
- the support to the teams who have not yet reached the level of operational-readiness of a DA configuration in their Institute, including the role of a "DAsKIT Coordinator" as long as relevant

He/she shall implement as relevant for his/her Area the tasks described in the first subsection General ToRs valid for all Area Leader positions.

Area Leader on EPS (length of mandate: 5 years)

The AL for EPS will lead the area, plan and coordinate the annual activities, with the aim of implementing the Scientific Strategy in his/her Area. He/she shall pay particular attention to the following transversal activities:

- the two-way link with DA including initial condition perturbations and the design of EDA systems
- coordinate the design of perturbation strategies, and research and development on perturbations of initial and lateral boundary conditions, surface and upper air model perturbations
- the link with MQA including the probabilistic evaluation of the performance of the NWP systems

He/she shall implement as relevant for his/her Area the tasks described in the first subsection General ToRs valid for all Area Leader positions.

Area Leader on Meteorological Quality Assurance (Length of mandate: 5 years)

The AL for Meteorological Quality Assurance will lead the area, plan and coordinate the annual activities, with the aim of implementing the Scientific Strategy in his/her Area. He/she shall pay particular attention to the following transversal activities:
- the progressive development of the MQA-Infrastructure and of the validation benchmark, in close coordination with Physics, Surface and Dynamics (scientific support) and System (technological support)
- the coordination with DA on the preprocessing of measured data used for model validation
- the coordination with the CSC Leaders regarding the analysis of the User feedback (User Representatives)
- the coordination for the extension of the validation benchmark to the needs of validating ML models components, in interaction with, and with the support of, ML experts

He/she shall implement as relevant for his/her Area the tasks described in the first subsection General ToRs valid for all Area Leader positions.

Area Leader for System (Length of mandate: 5 years)

The AL for System will lead the area, plan and coordinate the annual activities, with the aim of implementing the Scientific Strategy in his/her Area. He/she shall pay particular attention to the following transversal activities and coordination needs:
- on the modernization of working methods and related tools, the System AL shall work in close coordination and in synergy with the Integration Leader who has the responsibility of organizing the code integration process and the code versioning
- organize the implementation of the roadmap for the common scripting system. When relevant, make proposals for further developing the roadmap and enhancing the capabilities of the scripting system
- coordinate work on optimisation and compilation tools
- support the teams who have not yet reached the level of operational-readiness of a DA configuration in their Institute
- work in coordination with the CNA for monitoring and reporting on the outcomes of the local installation of the ACCORD codes at Members' premises
- make proposals and provide support for the design and maintenance of the MQA-Infrastructure
- make proposals and provide support to the further enhancement of the collaborative development environment (documentation, communication, data exchange)
- coordinate the sharing of tools and standards to facilitate the creation of ML training data sets, in interaction with, and with the support of, ML experts

He/she shall implement as relevant for his/her Area the tasks described in the first subsection General ToRs valid for all Area Leader positions.

Area Leader for Coding Evolution (Length of mandate: 5 years)
The AL for Coding Evolution will lead the area, plan and coordinate the annual activities, with the aim of implementing the Scientific Strategy in his/her Area. He/she shall pay particular attention to prepare the codes as well as the ACCORD community to the changing paradigms and tools for scientific and computational programming:

- analyze the needs with respect to the arrival of new programming languages and paradigms (such as Python programming and Python/Fortran interoperability, code-to-code translation tools and code refactoring etc.), organize the spreading of knowledge on these aspects in the ACCORD community
- participate in the analysis and elaboration of work plans aiming to ensure code portability, including the relevant tools such as compilation tools, in close coordination with the System Area Leader
- propose or actively participate, whenever relevant, in the definition and organization of tasks and work plans aiming at improving the efficiency and optimization of the codes, and/or the interoperability of scientific options (including the impact of code refactoring)
- for hybrid ML/physics-based NWP developments, analyze the needs and propose work plans for technically interfacing ML tools (codes) with the (equations-based) ACCORD codes, in close coordination with the other Area Leaders regarding the scientific objectives

He/she shall implement as relevant for his/her Area the tasks described in the first subsection General ToRs valid for all Area Leader positions.