

A Consortium for COnvection-scale modelling
Research and Development

ACCORD consortium presentation

C. Fischer, PM, with input by P. Pottier and A.-L. Dhomp, ACCORD/CSS
45th EWGLAM and 30th SRNWP Meeting, Reykjavik, Iceland

Governance level

- Assembly
 - on 7-8 December approved the 2022 reporting, the RWP2023, the LAM spectral transform codes to be open source, the budgets, etc.
 - approved the nominations of Physics and DA Area Leaders (online voting)
 - on 26 June approved nomination of new CSS, the organization of a User feedback activity at consortium level, the opening of a position of Documentation Officer,
 - discussed Machine Learning and Membership
- PAC:
 - 11 October 2022: addressed how to handle in ACCORD manpower contributions from the Destination Earth on-demand Extremes DT project
 - 10 October 2023: will address a strategic view about expanding international cooperation with our codes
- STAC:
 - spring-autumn meetings jointly with MG: preparation of the consortium scientific and technical strategy for the ACCORD next phase (2026-2023)
 - STAC 25-26 Oct in Brussels (& hybrid): will also discuss RWP-2023 realization and proposal for the RWP-2024

Minutes from all meetings are available publicly on the ACCORD website at <http://www.accord-nwp.org/>

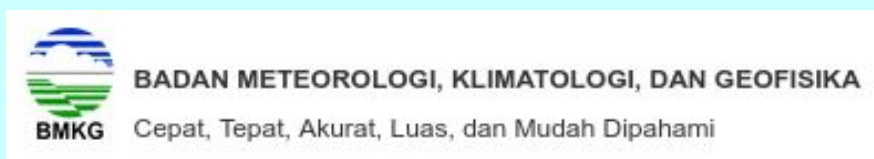
Membership

- Latvia

Discussions are ongoing to draft a cooperation agreement, in view of LEGMC to become an observer in ACCORD.



- Indonesia



The Indonesian NMS has expressed interest in joining ACCORD using the ASSOCIATE membership procedure provisioned in the ACCORD MoU-1.

- The ACCORD Assembly will further discuss a strategic vision and a general approach regarding the extension of international cooperation.

MG and ST positions

- MG new Area Leaders:
 - for (upper-air) Data Assimilation: Benedikt Strajnar (ARSO)
 - for (upper-air) Physics: Metodija Shapkaljevski (SMHI)
- Consortium Scientific Secretary:
 - Patricia Pottier has left on 1 August (retirement)
 - Anne-Lise Dhompas has joined MF and has become the new Consortium Scientific Secretary since 1 September
- Call for the position of a Documentation Officer (still open)



the ACCORD Management Group (MG) at one glance ...

Management Group

Chaired by PM



Area Leaders



Dynamics:
Ludovic Auger (Fr)

Surface: **Patrick Samuelsson (Se)**



Meteorological QA:
Carl Fortelius (Fi)

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



System: **Daniel Santos (Dk)**

Data Assimilation:
Benedikt Strajnar (Si)



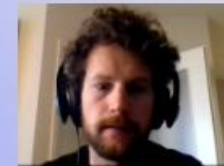
Physics: **Metodija Shapkalijevski (Se)**



Transversal activities:
Piet Termonia & Daan Degrauwe (Be)



Integration Leader
Alexandre Mary (Fr)



CSC Leaders

CSC Arome:
Eric Bazile (Fr)



CSC Alaro:
Martina Tudor (Hr)



CSC Harmonie-Arome:
Jeanette Onvlee (NL)



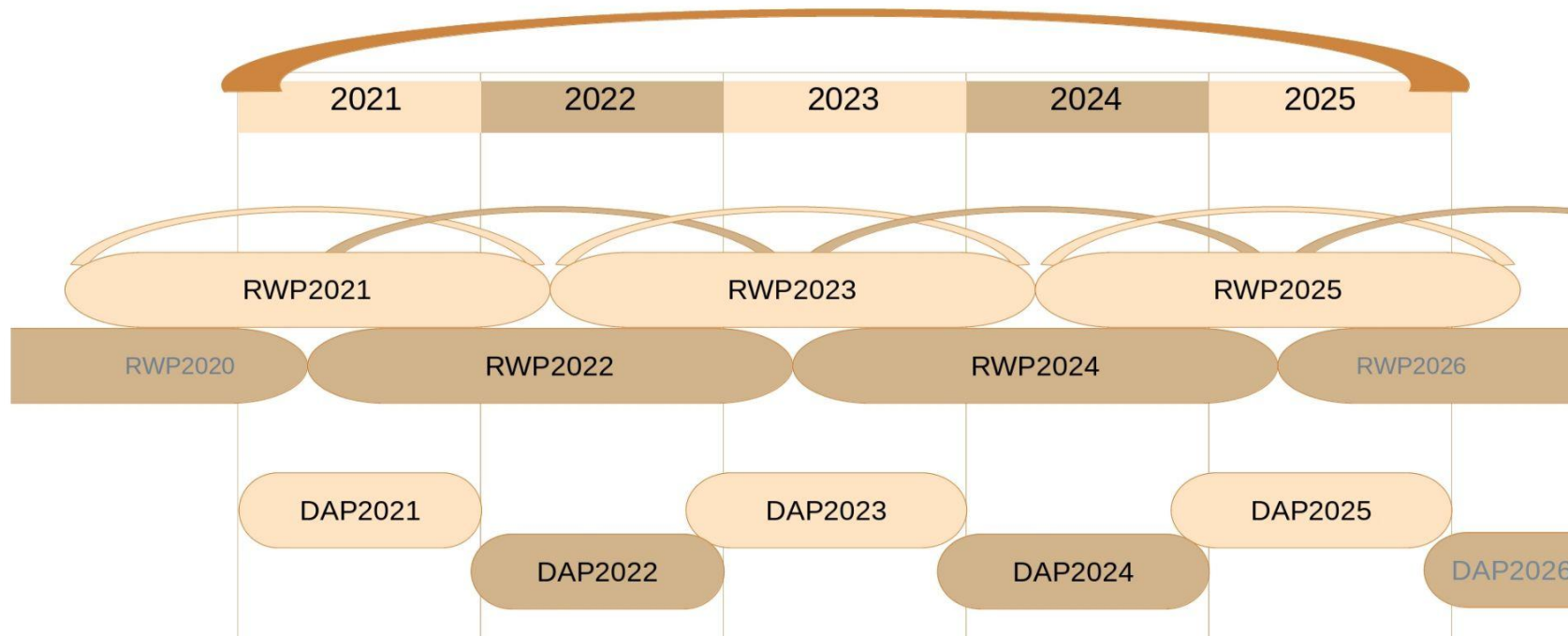
Management activity at a short glance

- Organization of Governance meetings, of budget, of MG meetings and management documents: PM + CSS, link with the ACCORD Bureau
- The MG prepares and implements the annual **Rolling Work Plan** (RWP) and the **Detailed Action Plan** (DAP), with the help of Work Package Co-leads and the Local Team Managers (LTMs)
- Some specific topics the MG currently is addressing (non-exhaustive list):
 - Common work environment on the ACCORD codes: implementation and use of an ACCORD source code forge under github
 - Research-to-Operations interfacing:
 - testing new code versions (on-going reflexions)
 - organize user feedback with “User Representatives” (to start this autumn)
 - Call for a Documentation Officer
 - Machine Learning for NWP (link with ML Working Group, with Governance)
 - Very High Resolution (link with VHR Working Group, with Destination Earth)
 - The preparation for the next phase Strategy (currently with STAC)
- The MG tries to visit members’ institutes (this year Tunisia and Iceland)

2021-2025: ACCORD MoU-1



Rolling Work Plans & Detailed Actions Plans during MoU-1



ACCORD scientific and technical strategy for the next phase

- ACCORD next phase should cover 2026-2030, with a new strategy
- We have started to prepare the scientific and technical strategy this year, with an expectation to have it completed for end-2024. The main steps will be:
 - STAC+MG to address a series of high-level questions, provide guidance (context and its evolution, scope, user needs, ML)
 - form (largely open) task teams to work on a list of agreed thematics (winter 2023-2024)
 - strategy workshop in spring 2024, to discuss the priorities, shape the content per thematics, possibly address potential difficulties, using the guidance from the high-level questions and the outcome of the task teams
 - a drafting team will write the strategy document during the summer 2024
- In between these steps, the progress of this preparation will be reviewed by STAC and by the Assembly

ML for NWP: strategic and work plan discussions ongoing in ACCORD

1. we have ML topics in the RWP; we should continue support them (and could ACCORD help accelerate them ?) - *about at least 18 tasks in DA, Physics, Surface and EPS*
2. some thematics could be further encouraged or supported (they seem quite in line with previously formulated recommendations by STAC):
 - a. foster some more coordinated approach to ML for DA, pave the way to observation-driven or hybrid DA
 - b. ensemble member generation and EPS, how to benefit from AI in probabilistic forecasting across all members ?
 - c. statistical downscaling in complement to dynamical downscaling with a focus on VHR resolution ?
 - d. assess explainability of AI-based results
 - e. build a strategy for sharing training data sets ? how ambitious ?
3. other open issues under discussion at ACCORD/MG level:
 - a. role of a Data Manager for ACCORD
 - b. common work environment: how useful is it ? or when would it become really useful ?

Destination Earth DE_330

- The goal is to develop an on-demand extreme-event digital twin, interfaced with the global digital twin (ECMWF), the data lakes (EUMETSAT) and the core service platform (ESA)
- The system will use modern HPC facilities from the EuroHPC Joint Undertaking
- An ACCORD-based offer has been chosen by ECMWF in September 2021
- 28 partners, out of which 21 are ACCORD NMSs
- Total budget 12M€
- Météo-France is the Prime Contractor with ECMWF (Elisabeth Gérard, MF); the scientific and technical leadership is shared with other ACCORD Members
 - Roger Radriamampianina (Met.no), Kristian Pagh Nielsen (DMI)
 - WP leaders from the various institutes
- A prototype demonstrating the proof-of-concept of the on-demand digital twin will be delivered by June 2024 (end of phase 1)



Funded by
the European Union

Destination Earth

implemented by



C. Fischer, ACCORD PM, 45th EWGLAM and 30th SRNWP Meeting, Reykjavik, Iceland

ACC RD
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Overview of ACCORD contributions to this year's EWGLAM/C-SRNWP conference

- Consortium talks: ACCORD, HIRLAM, LACE
- Verification session: Carl Fortelius' overview
- Surface session: Patrick Samuelsson's overview + Martina Tudor for LACE
- DA: 4 talks (Benedikt, Magnus, Valérie, Jana et al.)
- Physics: 4 talks (Eric, Bogdan, Emily, Yann)
- Predictability: 3 talks (Clemens, Inger-Lise, Laure)
- Applications: *Destination Earth related on-demand Extremes DT by Roger Randriamampianina*
- Dynamics: Ludovic Auger, Petra Smolikova
- additional talks in the thematic parallel sessions: about 8

Takk fyrir athyglina

ACC  RD

A Consortium for COnvection-scale modelling

3rd ACCORD All Staff Workshop

27-31 March 2023

Tallinn, Estonia



REPUBLIC OF ESTONIA
ENVIRONMENT AGENCY

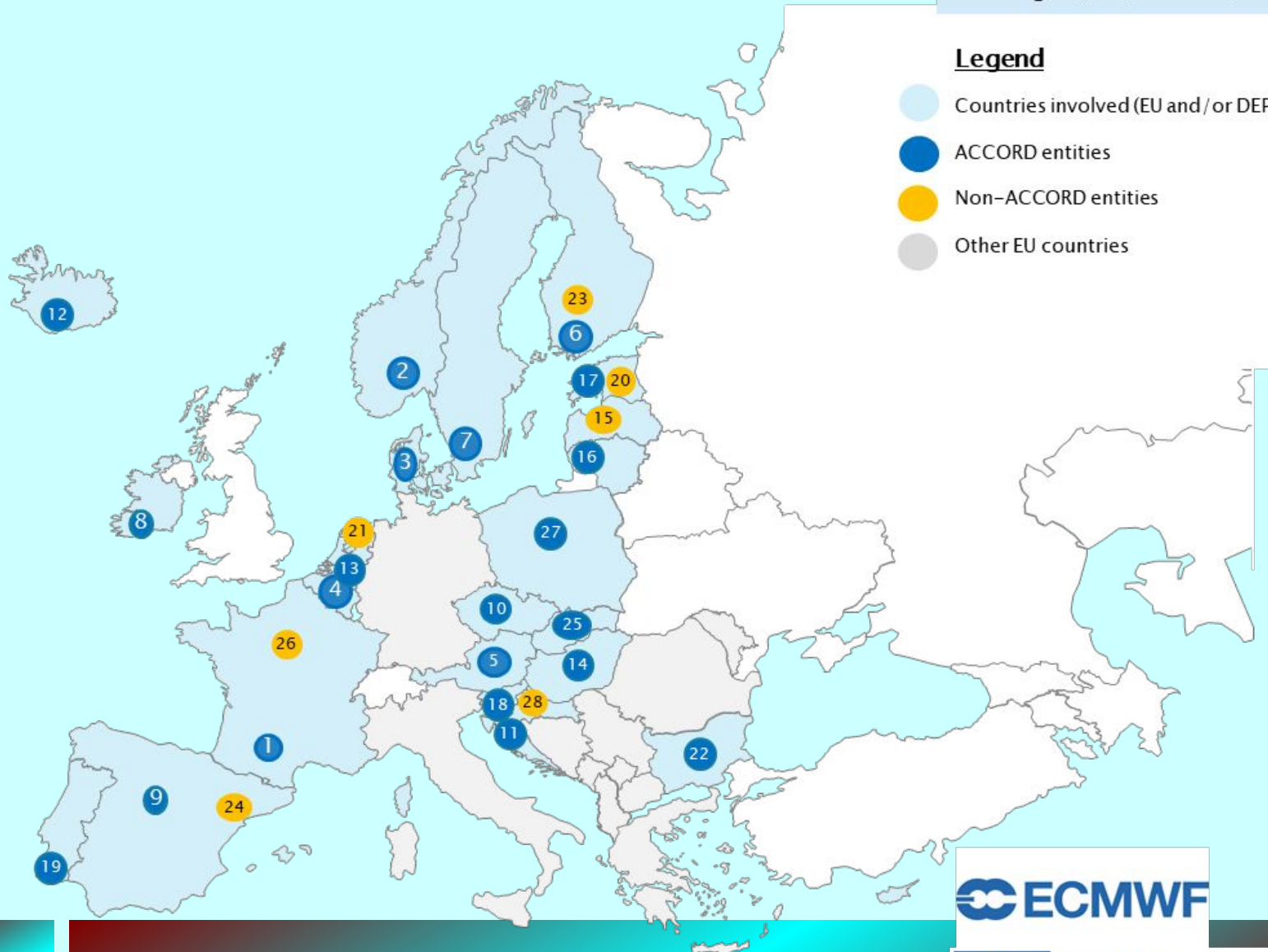


DestinE

Entities involved in DE_330

21 out of 26 ACCORD entities involved in DE_330

Missing: Algeria, Morocco, Romania, Tunisia, Turkey



Legend

- Countries involved (EU and/or DEP)
- ACCORD entities
- Non-ACCORD entities
- Other EU countries

1	Météo-France	FR
2	Met Norway	NO
3	DMI	DK
4	KMI-IRM	BE
5	ZAMG	AT
6	FMI	FI
7	SMHI	SE
8	Met Éireann	IE
9	AEMET	ES
10	CHMI	CZ
11	DHMZ	HR
12	IMO	IS
13	KNMI	NL
14	OMSZ	HU
15	LEGMC	LV
16	LHMS	LT
17	ESTEA	EE
18	ARSO	SI
19	IPMA	PT
20	TaITech	EE
21	RIVM	NL
22	NIMH	BG
23	CSC	FI
24	BSC	ES
25	SHMU	SK
26	INRAE	FR
27	IMGW	PL
28	IRB	HR

C. Fischer, ACCORD PM, 45th EWGLAM and 30th SRNWP Meet



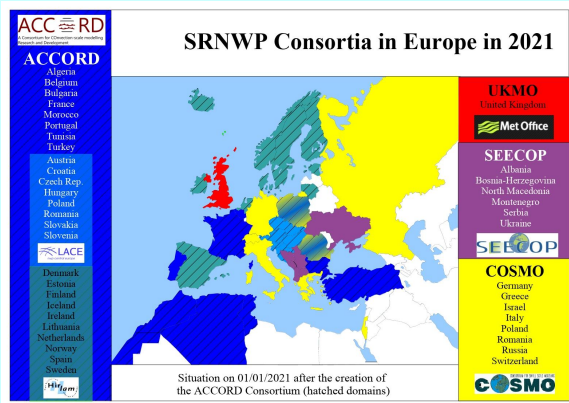
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About ACCORD

- Members (NMS, web)
- MoU (inc. agreement, licenses)
- Collaboration
 - SRNWP consortia in Europe



- Birth
 - press release, inc. video animation
 - ACCORD introductory text for NWP reviews

