



**3rd Joint ALADIN General
Assembly / HIRLAM Council
22nd November 2017
Krakow, Poland**



Minutes

The meeting was co-chaired by the Chairs of the HIRLAM Council (Marianne THYRRING) and of the ALADIN General Assembly (Martin BENKO).

1. Opening and welcome

Martin welcomed the representatives (see Annex 1) of the ALADIN General Assembly (GA), of the HIRLAM Council (C), and the ECMWF and WMO observers, for the 3rd joint GA/C. Marianne and Martin thanked the Polish hosts, the IMGW-PIB vice-Director for Meteorology and Aviation Tomasz WALCZYKIEWICZ and the IMGW-PIB Director for Krakow Branch Zbigniew USTRNUL for their excellent hospitality.

2. Adoption of the draft agenda

The proposed agenda was adopted.

3. Approval of the minutes of the 2nd Joint ALADIN GA/HIRLAM-C

The GA/C unanimously approved the minutes (*) of their 2nd joint meeting held in Darmstadt on 8th December 2016.

Martin proposed to officially approve the minutes of the joint GA/C meetings by email, not waiting for the next year meeting. **Patricia POTTIER will distribute the draft minutes shortly after the meeting for comments and the minutes should be approved by the GA/C through email exchanges before the end of January.**

4. Report and plans

1. Report from the 5th HAC/PAC meeting

Daniel GELLENS, as the new PAC Chair, reported on the Spring 2017 meeting between the HAC and the PAC. Main items of discussion will come back later in the agenda of the GA/C :

- the definition of the common codes : a Working Group was created to propose a methodology and a first list of common codes; discussions are on-going;
- the discussions on the IPR : also on-going;
- the new format of the Rolling Work Plan (according the template proposed by HMG/CSSI);
- the research and benchmark licenses templates : HAC-PAC recommended to approve them;
- the HAC/PAC decision to move their annual joint session to the autumn to better prepare the GA/C.

(*) A copy of the presentations of the 3rd Joint ALADIN GA/HIRLAM-C, some preparatory documents and some photos are available on the ALADIN website : <http://www.umr-cnrm.fr/aladin/spip.php?article313>.

The GA/C took note but, taking into account the need for further discussions on several points of substance (see item 5.1), the GA/C recommended that the HAC and PAC meet twice in 2018.

It was agreed that the HAC and PAC will meet on May 23rd 2018 in Dublin and in October 2018 in Prague.

2. Approval of the 2018 Rolling Work Plan

The PMs introduced the 2018 Rolling Work Plan (RWP2018) in its newly structured format that gives a clear overview of what will be done in 2018 : this new version is a big change and is not perfect on the first go. The PMs opened the floor for any comments, suggestions to improve this RWP and guidance on its scope (for instance, in which level of detail should it describe work on local/regional developments and implementations).

Many GA/C Members congratulated the PMs for developing this new format and expressed their appreciation for the improved transparency allowed by this new RWP. The importance and difficulty of following the execution of the planned R&D actions in 26 countries was also underlined. The PMs were confident that the governance and technical Work Packages that are now part of the RWP will make this coordination easier. For the first time, the RWP contains concrete deliverables and, by the next GA/C meeting, the PMs will have progressed on the monitoring and the validation in the common system of the three Canonical Model Configurations (AROME, ALARO, HARMONIE-AROME).

The GA/C approved the resources of their NMS working according to the RWP2018¹, asked the HAC/PAC to discuss its scope and how to follow its realisation and wished the PMs best luck to realise this plan for better services to the European and North Africans citizens.

3. Progress and plans at Météo-France

Claude reported (*) first on the last operational changes and e-suites in the global model ARPEGE and the LAM model AROME : early December 2017 a synchronous switch to operations of a new version of the ARPEGE and AROME codes (new surface scheme, +30% of satellites observations, with both new satellites and new sensors/channels, ...) is planned. Claude showed the performance indicators of the last ARPEGE e-suite and its globally positive scores with respect to RS data and ECMWF analysis.

Claude presented the various AROME systems used at Météo-France: in addition to AROME-France, AROME Overseas, AROME-Nowcasting and AROME-EPS are operational since 2016; AROME Ensemble Data Assimilation is planned to enter the e-suite of AROME-France configuration in 2018.

He also presented the evolution of AROME composite score and its added value with respect to global models. He gave the example of AROME-Antilles, its last improvements and its good performance on the IRMA hurricane (both on the cyclone track, intensity and timing).

In 2018, several improvements are expected with an increase of the ARPEGE horizontal resolution (5km instead of 7.5km over Western Europe) and of ARPEGE-4DVar and ARPEGE-EPS resolution, the implementation of an AROME Ensemble Data Assimilation, the change from two to four AROME ensemble forecasts per day and the work on single-precision runs.

On a longer-term, some developments will be done on physics (new surface schemes), dynamics (continuation of the work on solutions for dynamical core preserving the ability to run long time steps), data assimilation, and still the long lasting effort of recoding the NWP system with complex common code updates (phasing) expected. Finally, MF plans to upgrade its HPC in 2020.

1 **The approved RWP2018 is available on the aladin website : <http://www.umar-cnrm.fr/aladin/spip.php?article321>**

Yong asked about MF plans on sub-km resolutions with AROME. Claude answered that MF priority was implementing the new AROME Ensemble Data Assimilation, to move the operations to ensembles and to favour the use of ensembles rather than pushing AROME to higher resolutions. Tests are however conducted on a 500m version of the model covering the region of Paris, and another one covering the region of Nice.

Marianne thanked Claude for his presentation, the emphasis he put on the need for assimilation of new data and for ensembles and also, through the IRMA hurricane example, the illustration of how the progresses in LAM make sense by developing warnings and alerts that reduce the risks for life and property against natural disasters.

4. Progress and plans at ECMWF

Florence RABIER presented(*) a summary of current developments in the last couple of operational IFS cycles and the forthcoming one :

- All IFS configurations will soon be coupled to the ocean and sea ice.
- A longer term research development is the move to a coupled data assimilation system where in particular the atmospheric and the ocean will be analysed jointly through the 4D-Var incremental system.
- In terms of physics, there are some developments to tackle the grey zone in collaboration with ECMWF member states.
- Verification of the IFS is now systematically using the new reanalysis system, ERA-5, as a benchmark representing a frozen system. This helps to disentangle the effects of atmospheric variability in variations in scores.

A focus of the presentation was targeting the Scalability developments, including some taking place in the context of the ESCAPE project testing IFS dwarfs on GPUs. The EPECC proposal for a EU Flagship was presented. EPECC stands for European Programme on weather Climate and Computing. It had been initiated by Prof Tim Palmer from Oxford University, and is now led by Peter Bauer (ECMWF). The programme will be renamed ExtremeEarth as it is now combined with another project (Ultimate Earth), to present a united effort of the community for higher chances of success. There will be fierce competition for the future flagships but it is believed that the preparatory action which will last 12 months will, in any case, bring the community together and help develop joint projects, whether the Flagship is selected or not. ECMWF is proposing to lead this preparatory action.

Marianne thanked Florence for her presentation and these ambitious plans.

Yong asked if ECMWF had plans for cooperation with HPC commercial companies. Florence answered that ECMWF collaborates on computer science with HPC companies, not on NWP level. Questioned about a future full open data policy, Florence commented that it would be a decision from the ECMWF Council but, as the only additional resources for ECMWF is selling data and it is not a negligible amount, ECMWF would probably charge at least for the delivery.

5. Governance issues

1. Follow-up of the joint declaration

The PMs presented the convergence roadmap and the proposed steps (some have already been executed) to address the 5 bullets of the 2014 Joint declaration. This had been already discussed at the separate ALADIN GA and HIRLAM C and the Chairs summarized the discussions : **both assemblies favoured the “light version of the future consortium”, i.e. a stepwise pragmatic approach, with a first light collaboration with clear scope and reachable targets (leaving the local implementations under the responsibility of smaller consortia or regional cooperation),**

with the ambition to develop the scope of the cooperation on a longer term.

The floor was opened for opinions from the GA/C. The PMs were thanked for the formalisation of the roadmap, the progress since 2014 and the questions they raised to the GA/C.

The PMs were tasked, together with HAC/PAC :

- to reflect on **the scope of the future single consortium** (what the 26 NMSs want to do together);
- to identify the **core areas of collaboration** at the start of the single consortium while leaving room for further enlargements of the scope later;
- to develop a **vision and mission and to identify core values, consistent with the “2016 - 2025 Strategy of the European National Meteorological and Hydrological Services : Towards a network of European NMHSs : collaboration & complementarity”**, adopted in May 2016 by many ALADIN-HIRLAM NMSs;
- to **reflect on options for the governance of the single consortium**, inspired from the governance of other international cooperation such as EUMETNET, EUMETSAT, ECMWF, ECOMET;
- to edit a **kind of “dictionary”** to make sure the same words are used with the same meaning among 26 ALADIN-HIRLAM NMSs currently belonging to different consortia with different practices and culture.

The PMs and HAC/PAC should come back to the next GA/C with proposals on the above points.

In order to work with the PMs on these points and to proceed with the discussions on the IPR, the voting rights, the precise content of the RWP, the manpower commitment in the RWP and the monitoring of the invested manpower in ALADIN-HIRLAM common work, it was agreed that **the HAC-PAC will hold two joint meetings in 2018** (see item 4.1). **An interim report will be prepared after the first meeting in May and distributed to the GA/C Members** who will be given the opportunity to discuss it with their scientists before their next joint meeting.

2. Approval of Research and Benchmark licences templates

As stipulated in the A-H cooperation agreement signed on 8 December 2016, draft templates for licensing of the shared A-H codes for either research or computer benchmarking/ optimization were prepared. The HAC and the PAC have scrutinized them and recommended their adoption.

The 3rd Joint GA/C approved the templates² for licensing of the shared A-H codes.

6. Date and place of the 4th joint ALADIN GA / HIRLAM Council

The next meetings will be held in Zagreb, back-to-back with the EUMETNET/ECOMET meeting, according to the following schedule :

- 19 November 2018 afternoon : ALADIN GA,
- 20 November 2018 morning : LACE and HIRLAM councils in parallel,
- 20 November 2018 afternoon : joint ALADIN-HIRLAM meeting,
- Joint dinner on 20 November evening.

7. A.O.B

None.

² **The templates are available on the “Partners” password-protected directory of the ALADIN website**

8. Closing

The Chairs thanked the GA/C for the fruitful discussions and closed the meeting at 12:00.



Participants of the 3rd joint ALADIN General Assembly and HIRLAM Council

Annex 1 : Participants

COUNTRY	NMS	Participants
ALGERIA	ONM	Bachir HAMADACHE, Mohamed MOKHTARI
AUSTRIA	ZAMG	Yong WANG
BELGIUM	RMI	Daniel GELLENS
BULGARIA	NIMH	
CROATIA	DHMZ	Nataša STRELEC MAHOVIĆ, Branka IVANCAN-PICEK
CZECH REP	CHMI	Mark RIEDER, Václav DVOŘÁK, Radmila BROZKOVA
DENMARK	DMI	Marianne THYRRING, Ulrik Smith KORSHOM
ESTONIA	EEA	Taimar ALA
FINLAND	FMI	Carl FORTELIUS
FRANCE	MF	Anne DEBAR, Philippe BOUGEAULT, Claude FISCHER
ICELAND	VI	
IRLAND	Met Eireann	Eoin MORAN
HUNGARY	HMS	Kornélia RADICS, Mihaly SZUCS
LITUANIA	LHMS	
MOROCCO	DMN	
NETHERLANDS	KNMI	Gerard van der STEENHOVEN
NORWAY	Met.no	Roar SKALIN, Jørn KRISTIANSEN
POLAND	IMGW	Zbigniew USTRNUL, Tomasz WALCZYKIEWICZ, Bogdan BOCHENEK
PORTUGAL	IPMA	
ROMANIA	NMA	Elena MATEESCU, Simona TASCU
SLOVAKIA	SHMU	Martin BENKO
SLOVENIA	EARS	Jurij JERMAN, Jure CEDILNIK
SPAIN	AEMET	Jose Antonio FERNADREZ MONISTROL
SWEDEN	SHMI	Stefan NILSSON, Bodil AARHUS ANDRÆ, Heiner KÖRNICH
TUNISIA	INM	Hédi Agrebi JAOUEDI
TURKEY	TSMS	Tayfun DALIKILIC
ALADIN / PM		Piet TERMONIA
ALADIN / ST		Patricia POTTIER
ALADIN / ACNA		Maria DERKOVA
ECMWF observer		Florence RABIER
HIRLAM / PM		Jeanette ONVLEE
WMO observer		Milan DACIC