

**First meeting of the ad-hoc Working Group (WG) of the ALADIN Assembly of Partners for “Cooperation between the ALADIN consortium and non-Member African NMSs”, Ston-Dubrovnik, Croatia, 19/4/2002**

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The Working Group first took note of the apologies of V. Ivanovici (Romania) and of A. Mokssit & R. Ajjaji (Morocco) for not being able to attend (the content of a non-official mail explaining -in French- the Moroccan position at the time of the meeting is appended -Appendix 2- at the end of this report). Despite the disadvantage of such a reduced composition, the participants decided to go on with the tasks put forward to them by the recent Assembly of ALADIN Partners.

After briefly reviewing the preparatory document (Appendix 1) that gives a complete idea of the background and terms of references of its work, the Working Group examined a maximum of issues and made the following recommendations (for its own future work as well as for more general purposes):

The ALADIN community should find appropriate ways to show its genuine interest on NWP progress in Africa as a whole, without endangering the principles that have allowed its success up to now.

- This should hence happen while minimising the changes to the current MoU made necessary for it, and on the basis of an offer from the ALADIN Members rather than on an acceptance of external constraints.
- In particular, only Members with a right to full-membership (A-zone of the MoU, i.e. in the African case, Morocco, Algeria, Tunisia, Lybia and Egypt) should be able to play a role in the ACMAD strategy for sub-continental NWP roles, should the latter be based on ALADIN.
- In the short term, this obviously means that only Morocco and Tunisia could play a specific role in an agreement involving the use of ALADIN and made on the basis of the discussion of the Casablanca Assembly about the ACMAD letter. In particular, no “opportunity” adhesion should be linked to such an on-going step.
- Assuming the concretisation of sub-regional activities as foreseen in the SAPREM documents of ACMAD, the ALADIN implication to Africa should be kept strictly limited to the north of a specific border line, to be defined as permanently as the one of the Zone A of the MoU and reflecting the proximity to the latter with respect to the other envisaged sub-areas (*NDLR: on the basis of the preliminary ACMAD documents about sub-regional domain characteristics, E. Legrand and J.-F. Geleyn prepared, after the Ston-Dubrovnik meeting, a first estimate of this border as the one encompassing, from West to East, the following countries : Guinea, Mali, Burkina-Fasso, Benin, Nigeria, Tchad, Soudan and Erythrea*)
- In order to avoid a potential conflict of interest for European ALADIN Partners when giving right of free use of some ALADIN products to some non-participating African countries, a list of economic conditions (EUMETSAT-inspired) should be approved by the Assembly of Partners to allow listing the beneficiary countries of this “exception”.
- Concerning the Pretoria meeting scheduled for Fall 2002, the ARPEGE/ALADIN delegation should encompass someone of the ALADIN European Partners outside Météo-France. This principle of “diversity” should be extended to any further similar occasion.
- If any specific MoU modifications have to be monitored with ACMAD, this should be done by the creation of a kind of “rotating foreign bureau” of ALADIN, hosted by the last organiser of the Assembly of Partners (starting with Romania, if this measure is approved at the next

session of the Assembly).

- The transmission of the unique expertise existing inside the ALADIN community on the link between shared development of tools and efficient use of them should be the main guideline for defining axes of collaboration with the SAPREM project of ACMAD. Any proposal along this line should contain some information about (i) the past history of ALADIN, (ii) the rules of cooperation and their consequences in terms of solidarities of any kind and (iii) estimates for time-scales of development and of catching-up with programmes.
- At the African level, every effort should be made to favour the networking around such ideas between NMSs (the logical correspondents of both ACMAD and of the above-mentioned ALADIN rotating contact point) and available experts at the national level.
- The MAAT component of the SAPREM programme should by all means be prevented to enter in competition with ALADIN-based new initiatives.
- RETIM-2000 could offer (in the future) a way of feeding a pool of intermediate expertise for diversified further telecom solutions that are obviously needed for consolidating any socio-economical useful application of ALADIN products in Africa.
- The need to come-up with solutions fully acceptable to ECMWF in the framework of the software agreement IFS/ARPEGE/ALADIN should be kept in mind for any proposal or decision of the Assembly of Partners, concerning the above.

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## **Appendix 1 : Preparatory document by J.-F. Geleyn / Météo-France**

### **I) Background**

\* Extract of the Minutes of the 6th Assembly of ALADIN Partners, Casablanca, Morocco, 14/1/2002:

#### *8.1 Cooperation with ACMAD : African Centre of Meteorological Applications for Development*

*The Assembly received a letter from ACMAD dated on January the 9<sup>th</sup>, 2002. By this letter ACMAD stressed its wish to be somehow associated to the ALADIN consortium. Such a partnership would help African countries benefit from numerical weather forecasting. Such a help to Africa was considered positively by the ALADIN Assembly. But it still raises political and technical issues. Technical questions include the possible use of scientific ALADIN choices in the vicinity of cyclones, the possibility of running larger ALADIN models covering parts of Africa, the transmission of results to the various countries, etc. Political questions include the extension to Africa of the agreement with the ECMWF, the political "visibility" of the ALADIN consortium, and the adequation to the new MoU. To study these questions and report to the Assembly, a small working group is created to work on questions of cooperation between the ALADIN consortium and non-member African NMSs. The main tasks of this group will be:*

- 1. To examine the ACMAD official request that led to its creation,*
- 2. To define an acceptable philosophy for all ALADIN Members in view of possible cooperation with the relevant African partners,*
- 3. To study which directions of change for the MoU and which contacts with ECMWF would be necessary for an implementation of the ensuing strategy,*
- 4. To see, in particular in coordination with the African ALADIN Full-Members, which steps would be most likely to concretise the intentions born out of points 1, 2, 3 above.*

*The Working Group comprises representatives from Morocco, France, Belgium, Croatia and Romania.*

\* A 3 day workshop should take place in Pretoria in late September 2002 (NDLR: **put forward to late August after the Ston-Dubrovnik meeting**) in order “to define a realistic and efficient strategy for the development of NWP in Africa, to precise the scientific and technical targets of the possible implementation of a mosaic of LAMs”; it should bring together “representative of the various African NMSs implied in this activity as well as experts of American and European NMSs that have (or could have) a cooperative action with some of these Services”.

\* There exist an ACMAD strategic plan for meteorological forecasting (including a strong NWP orientation), named SAPREM, since mid-1999. A letter of ACMAD to all its 53 Member NMSs dated 11/12/2001 is seeking advice in order to reorient SAPREM in view of its past successes and difficulties (see Appended document, to be read especially from Part D onwards).

\* Among those difficulties, there is the diagnosed quasi-impossibility to build a permanent and sufficiently large group of African experts to support the joint development and maintenance with Météo-France of the MAAT (Modèle Africain ARPEGE Tropicalisé) tool that should have been one of the backbones of SAPREM.

## **II) Boundary conditions to the WG's task**

They are numerous and sometimes apparently daunting. Hence there will be no attempt here to structure them (further than presenting them two by two in a contradicting way, whenever possible). It is hoped that the variety of approaches that could come from different interpretations by the WG's members will be a path for sorting out the very complex resulting situation.

- How to give a positively oriented answer to ACMAD's request (in the spirit of WMO voluntary cooperation programmes) while preserving some of the basic characteristics of the ALADIN project that, unlike other possible components of SAPREM, relies on a strong emphasis on common intellectual property, on shared development- and maintenance constraints and on right of use through manpower investment?

- How to avoid that confusion between the MAAT and ALADIN aspects of SAPREM lead to a “through Météo-France's channel only” for the relationship ACMAD – European ALADIN Partners, but on the contrary, how to reach a situation where African NMSs would clearly be aware that Météo-France = 23% only of ALADIN and that any special help means some duty in terms of “image” for the 12 other European Members?

- How to sort out the distinctions between the meteorological (WMO AR-I), political (ACMAD as an emanation of the Conference of African Ministers) and geographical (Africa + surroundings) zone of interest that any NWP application may have to deal with?

- How to find technical and manpower solutions to avoid the too easy split between the problems of NWP products' reception and handling and those of NWP-awareness (even before the capacity to generate such products)? The success of the ALADIN concept, 10 years ago, may here be at the same time an enlightening example and a false track, given the very different starting points in terms of existing expertise.

- How to find a political solution that helps SAPREM through ALADIN (it is obviously out of question to think about Associated Membership for ~50 NMSs) while identifying Morocco and Tunisia as Full ALADIN Members already at the time of the official ACMAD request and still maintaining the distinction between the Euro-Mediterranean area and the other parts of Africa? The division in sub-continental area for “intermediate” LAM applications might be of some help here, but formalisation of such a concept (completely external to the ALADIN MoU) will surely not be easy.

- How to take into account the wish of ACMAD to draw the lessons of the first steps towards MAAT by extending the search for expertise outside the strict framework of the NMSs?
- How to sort out the antinomy that can exist between the MAAT plan and the ACMAD wish to see 4 emerging sub-continental LAM applications (independently or not of the ALADIN-Reunion already existing one)? It has never been in the interest of our scientific work to put in competition differing applications of ARPEGE and/or ALADIN and, help to ACMAD should not lead our scientific community to such a pitfall for political considerations.
- How to imagine computing solutions compatible with the even more pressing problem of products dissemination, despite the existence of promising telecommunication means? RANET is ideal for a wide range of users but requires intermediate treatments to condense the information and make it fully accessible and RETIM-Africa is probably too centralised and too much Toulouse-bound for all the required flexibility of NWP use by NMSs not accustomed to it.
- Coming to the problem of the (almost certainly) necessary modification to the MoU, the main problems might be (i) with respect to ECMWF (what is allowed or not once one goes outside Europe and without the justification of common work on the "IFS-rooted" codes ?), (ii) with respect to our Maghrebian (current and potential) ALADIN Partners (one should not deprive Morocco from the chance to play a key-role in the SAPREM emerging organisation but any solution taking this into account should not become a source either of internal ALADIN competition or of precedent for further evolutions towards a less "protecting" MoU) and (iii) with respect to potential "B-zone ACMAD-type ALADIN-using" African NMSs (which rights -surely not above those of a "contributing" Associated Member- should be given to them in order not to transform the existing ALADIN expertise in a permanent "hot-line" feeding mechanism ?)

### III)What to do first?

Suggestions: Analyse the MoU to see the remaining degrees of freedom.

Imagine the type of role ACMAD could be given, especially with respect to these existing possibilities, and imagine an original solution for the remaining constraints.

Try to sort out all contradictions mentioned in Part II above in light of the two previous steps.

Iterate the process if necessary

Prepare a calendar for agreement by mail exchange and second meeting, with the Pretoria deadline in mind.

### ***Appendix 2 : Relevant extracts of an apology mail from DMN-Casablanca for not being able to attend the Ston WG meeting and recalling the DMN position***

Ceci étant, la DMN vous prie de bien vouloir transmettre au groupe de travail sa vision vis a vis de "l'association" éventuelle de l'ACMAD au sein du groupe ALADIN. Cette vision a été plus ou moins évoquée par M. Diouri durant la dernière Assemblée des Partenaires ALADIN à Casablanca. Je vais ici la rappeler en quelques phrases :

- l'ACMAD diffère du CEPMMT dans le sens que l'ACMAD est sensé aider les pays africains membres à développer des moyens matériels et humains localement dans le but mettre le secteur météorologique au service du développement des secteurs socio-économiques. De ce

fait, il ne doit pas être pris par les participants comme étant un établissement analogue au CEPMMT.

- Le Maroc et la Tunisie, actuellement les seuls pays africains dans le consortium ALADIN, peuvent jouer un rôle très essentiel dans la mise en place d'une stratégie d'association progressive des pays africains :
  - - Formation en prévision numérique ;
  - - Stages pratiques ALADIN ;
  - - Faire connaître ALADIN en Afrique.
- Le Maroc est prêt à tourner une version ALADIN sur une grande partie du nord africain en vue de desservir les pays couverts associés par les produits ALADIN, tout en respectant entièrement les articles du MOU en vigueur dans la matière. Cette version du modèle sera mise en place à Casablanca et validée en entière collaboration avec les pays du consortium. La validation portera surtout sur la partie physique du modèle qui devra subir un gros travail d'adaptation à la région équatoriale et à haute résolution. Il faut d'ores et déjà penser à concilier ceci dans le cadre du projet AROME. Ceci constituera une première phase avant la migration vers une localisation de différentes versions ALADIN dans les pays africains désireux de tourner des versions fines sur leurs territoires, tout en étant desservis par Casablanca en matière de couplage. Cette dernière étape si ambitieuse, suppose que les pays Africains soient prêts surtout en matière technologique et Télécom. Ceci suppose également que la communauté ALADIN pense à une nouvelle formulation (moins rigide) du MOU.
- Actuellement la stratégie ACMAD en matière de prévision numérique consiste en:
  - - La formation de cadres spécialisés dans les différentes sessions SAPREM : la prochaine aura lieu en Septembre à Casablanca.
  - – Travail en vue d'équiper les pays africains en ressources humaines capable de mener un travail de développement en matière de NWP locale si besoin est.
  - - L'ACMAD veut mener un travail de coordination entre les pays africains capables de tourner des versions de modèles couvrant dans leur ensemble le continent africain : il est question de 4 versions (NORAF : Casablanca, SUDAF : Afrique du Sud, ESTAF : Nairobi, CENTRAF : ARPEGE/France (étire centré sur le golfe de Guinée).