

# 4th Assembly of ALADIN Partners

Lisboa, Portugal

December, 6th, 1999

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## 1. Opening

The 4th Assembly of ALADIN partners opened at 0900 on December 6<sup>th</sup> , and was chaired by Carlos D. TAVARES, Vice-President of Instituto de Meteorologia, Portugal. The Chairman welcomed all participants to Lisbon, including ECMWF, invited as an observer. He stressed the importance for Portugal to participate in this program and the high regard we have for the results provided by this model. Then the draft agenda was taken into consideration and its final version is presented in the Annex A. A list of participants is presented in Annex B.

## 2. Preparation of the revised 2000 ALADIN MoU.

The French delegation introduced this item. Stress was laid upon the importance of reaching a *consensus* until next Assembly, in 2000, when the present *Memorandum* is due to be reviewed. New questions and ideas are related with the role of associated members, commercial activities, etc. Some countries and organisations all over the world have expressed interest in joining this common effort in the field of NWP. Currently, there is also some hope to sell the service of an ALADIN model running in Toulouse and providing products for a non-ALADIN NMS with redistribution of royalties to all Partners.

It was decided that the simplest way to proceed was in a 3-stage process under the responsibility of a small inter-session group: first, to exchange by correspondence some ideas and proposals for modifications; second, to submit them to all Partners; then, to draft the new MoU to be presented to next Assembly.

Several exchanges of comments were made between France, Slovenia and Czech Republic and an agreement was reached that a tentative small group could be: RC/LACE represented by its Slovenian Presidency, France and Romania. This last country is going to be contacted in order to inform whether it wishes to participate.

The Assembly approved the membership of this small group, with the mission to draft the new Memorandum of Understanding according to the suggestions received during 2000, and to report to next Assembly.

## 3. ALATNET

This item was introduced, and it was explained that this proposal was submitted for funding to the 5th Research Program of the EU. A document was written in its final version during May/June 1999, and by the end of October a pre-selection notice was received. This Research Training Network involves 5 centres: Toulouse, Brussels, Budapest, Ljubljana and Prague, with a total funding of 822,000 Euros, during a period of 4 years, dedicated to PhD and Post-Doctoral studies.

EU requested that the administrative affairs of ALATNET be separated from those of ALADIN, which presented an extra difficulty: the duplication of databases, since researchers from non-ALADIN countries could participate in ALATNET. One slight consequence, in the medium term, is the need to accommodate this 3rd category of work, the one related with ALATNET, in the current MoU.

Slovenia congratulated Météo-France (MF) for all the work done with this proposal and its achievements. France noted that the maximum benefit was for all partners, with the future transfer of more research work into operations. Nevertheless, it was reminded to everyone that, while we had experience with PhD studies, this was the first attempt with Post-Doctoral work. The EU is expecting a full commitment from the start of this program. Intentions for this project were already received from Poland, Austria, Romania, France-Croatia, UKMO and the HIRLAM community.

On the question "who is responsible for those participants not coming from ALADIN countries?" it was clarified that such responsibility is to be attributed to the host institution, from the ALADIN community, which is supervising the researchers.

The Czech Republic, supporting Slovenia, welcomed all the efforts developed by MF.

The program was submitted to all partners for consideration and the Assembly unanimously supported it and trusted MF to continue all the contacts with the EU.

The 3rd paragraph of the Appendix C of the updated ALADIN MoU (Prague Assembly of Partners, in Nov 6th, 1998), will be replaced by the following one: In order to obey an EU request, all actions must be identified as ALATNET ones or NON-ALATNET ones. The ALATNET actions, the actions in Toulouse and the ones in Prague on official behalf of RC-LACE are

registered immediately while a three months' lag is applied to the deported contributions (including Meteo-France's visits abroad and CHMI's independent home contributions), due to the experienced difficulties in collecting the information.

#### **4. Approval of the revised 2nd Medium-Term (1999-2001) research plan for ALADIN**

Morocco introduced this item. Three main topics were focussed: Maintenance and Improvement of the Operational Versions, High Resolution Modelling and Data Assimilation. For each of these 3 generic targets the relative importance of themes was established and these were distributed, by priorities, in: very/high, medium and long term.

At the same time, it was stressed what work was completed on those themes during 1999 and the expected work to be done during the year 2000 on: Physics, Dynamics (including coupling) and Data Assimilation.

The Assembly took note of all the developments achieved during 1999 and approved the Medium-term research plan for ALADIN.

#### **5. Assessment of the 1999 scientific programme and presentation of the 2000 scientific programme.**

France introduced this assessment and commented that, during 1999, the project decreased its total activity by 12% with respect to the previous year, partly due to the stricter rules approved in 1998 and, also, to the delay of the French Foreign Affairs Ministry (MAE) funding. Since the start of the project 181 persons were involved, 107 of them being still active in the project within the last 12 months. The overall manpower target for 1999 was missed by 16%.

Despite a significant weakening of the research effort, the scientific situation is still promising, since important steps were achieved and new ideas emerged. 1999 was a better year for co-ordinated actions and a good one for the general progress of operational activities.

The Czech Republic commented on the short stays of technical staff in Prague and Toulouse, reminding that it is the responsibility of every Director to commit resources to this project and that it is not good to leave the solving of all problems only to Toulouse or Prague. Belgium and Poland expressed that 2 months stay are too long and that maybe some compromise must be reached, for example stays of 4 weeks. Hungary commented on the enthusiasm and financial support that was available at the beginning of this program in contrast with what it is now. France underlined the more specific needs for the phasing problem, with an optimal length of 6 weeks every 6 months. A length of 2 months is also a minimum for inexperienced visitors.

Slovenia made some comments on the need to support the operational work and the difficulties in committing staff to scientific matters in first place. In this respect, Czech Republic made the suggestion for Directors to look at the Universities to get better support. Hungary underlined that workshops were more attractive for scientists than isolated stays.

The Assembly took note of: (1) the decreased averaged length of the stays in Toulouse, (2) the effort that should be made from the management of all Partner NMSs for the maintenance, (3) the fact that decentralised research was successful in too few places and (4) that the arrival of ALATNET will also create an increase in administrative related matters.

From the scientific progress in 1999, it should be singled out that most local ALADIN applications were already operational; that a new scientific plan was widely spread and discussed and that a real effort was made to improve information and project co-ordination. Due to some unfavourable circumstances most research stays in Toulouse were postponed. Several problems occurred with the last cycle (11) of ALADIN.

Finally, the Assembly was briefed on the significant progresses made in Data Assimilation, Dynamics and Physics.

The 1999 assessment of achievements within LACE was made by Slovenia, which currently holds the Presidency of RC/LACE. The presentation focussed on: the common supercomputer installed in Prague, in mid 1998; the milestones in 1999; the NWP core team in Prague; the support to MAP field phase and, finally, the commitments within ALADIN Research Plan.

## **6. 2000 ALADIN Partners commitments and 1999 commitments assessment.**

A "tour de table" of all the delegations<sup>1</sup> lead to the following commitments for 2000 (all figures are in man/month):

<b>Country</b>	<b>Commitments for 2000</b>
Austria	21
Belgium	36
Bulgaria	30
Croatia	54
Czech R.	70
Hungary	36
France	88
Morocco	45
Poland	30
Portugal	36
Romania	30
Slovakia	48
Slovenia	32

## **7. ALADIN school on high resolution modelling**

This seminar is scheduled to take place at a summerhouse of the Czech Republic Meteorological Service in Radostovice in the second half of May 2000. It will consist of 2 weeks of teaching classes for students with a basic NWP knowledge to increase the efficiency of the distributed research work around ALADIN. It is expected that some EU funding will solve part of the financial burden.

A full commitment of all the Directors is expected on the number of students, on their previous NWP and/or ALADIN familiarisation and on their future involvement in this project. Below a certain number of such commitments, the seminar will be cancelled and another format sought.

The Assembly took note of the proposed date and place of this ALADIN School.

## **8. Strategic orientations on data assimilation and non-hydrostatic modelling**

Under this item, France made an extensive presentation on the ALADIN specific links, namely between the "Operational character", the Research and Development and the Scientific and Technical Maintenance.

Up to now, there was a single concept for the tools used, i.e., usage of Dynamical Adaptation and Optimum Interpolation. In the near future, however, a far greater variety of choices of tools and goals will be available, increasing the strain on maintenance and consistency of the system, especially if the computer power of each Partner is taken into account.

A strategic analysis of the scientific problem of the mid-latitude mesoscale data use presents three issues:

- Global synoptic early cut-off for coupling;
- High density of mid-latitude continental observations to extract the ageostrophic/diabatic signal, crucial for the prediction of extreme events;
- Frequent refreshment of the "last minute" high-resolution local running of forecasting model for nowcasting.

One possibility is to support the complementarity between these three stages operationally, i.e., to put informally, "everyone specialises a bit on the level best suited to its technical potential and co-ordinates this effort with the other levels, so that each one can draw maximum benefit from the information".

During the discussion that followed this presentation, Hungary expressed some concern over the cost of the computer system and the number of staff involved to support this programme and pleaded for the study of alternatives.

The Assembly took note of the risk associated with the different paths and the need to assess the different strategies involved in this issue. All countries interested in the follow up of this subject should contact either J-F Geleyn or A. Horanyi as soon as possible.

## **9. Technical overview of the project at the end of 1999 and 2000 prospect**

There were no major breakthroughs in 1999 on this subject. There are at present 12 operational or pre-operational runs of ALADIN model.

Increased resolution of ARPEGE was delayed due to the delay of the delivery of the Fujitsu computer in Toulouse; also the introduction of 4-D var in Toulouse was slightly postponed to the beginning of next year.

Morocco issued an ITT for its supercomputer. Slovenia reported on the usage of a cluster of Workstations running ALADIN.

RMDCN is progressing according to schedule; outside are only Poland and Morocco at present.

On the Y2K issue, several test files are available to users.

## **10. Commitment for the maintenance effort - 1999 status.**

An updated table showing the distribution of the maintenance effort among partners was presented. It is clearly not enough balanced, even when taking into account the size or the experience of the different teams. The rules proposed by the co-ordination team in the revised version of the second medium-term research plan did not apply, and the large increase of work along the last year was assumed by the small Toulouse support team.

It was considered that a solution might be to apply the proposed rules for phasing and to impose to every team to devote only 10% of its total effort to maintenance (20% for the Toulouse team). The increasing effort concerning documentation was underlined, with 3 new topics covered in 1999: CANARI (Romania), 923 (Slovenia), physics (Belgium).

The directors agreed to the proposed solutions, and some even wrote their commitments accordingly. A specific commitment of maintenance will anyway be sent to everyone.

## **11. Verification's project**

At present the verification issue is handled in Europe by several teams:

- EWGLAM (with co-ordination of Germany);
- SRNWP (with a focal point by the Netherlands);
- ALADIN,

with no real effect yet

A well running example is the one by WMO on the scores for global modelling, with a decentralised way of functioning.

The Assembly decided to endorse the following actions: (1) the need for each NMS to nominate a contact point dedicated to verification; (2) to start a WMO like, i.e. decentralised, exchange of scores (but using the same definitions and same parameters as in the EWGLAM project); (3) computation by everyone of scores for its geographical domain using the stations recommended by EWGLAM (with special attention of Morocco, not included in the EWGLAM); (4) scores sent back to all other contact points. If this first attempt is successful, it will open the way to a broader co-operation, at the European level, for the exchange of scores, and towards a better co-ordination of subjective verification and the collection of typical situations inside the ALADIN partnership

## **12. Date and Place of the next Assembly**

On the invitation of the Austria Meteorological Service (ZAMG) the next Assembly, the 5th one, will take place in Vienna, on Friday 24th November, 2000 (tentative date, but only to be modified to an earlier one).

On the invitation of Morocco, the 6th Assembly will take place in Casablanca, on 2001, on a date to be announced.

## **13. Any Other Business**

Slovenia distributed a questionnaire on the applications available in ALADIN countries. The intention is to collect and send information, so as to better co-ordinate and minimise the efforts of development.

France mentioned the problems that occurred in Toulouse in September, recognising the disruption of services it may have caused in other NMSs; it is expected that, within one year, a range of solutions will be

proposed to minimise this type of problems.

#### **14. Closure**

The 4th Assembly was closed by its Chairman at 1600 on December 6th, 1999.

### **Annex A**

#### **Agenda of the 4th Assembly of Partners**

1. Opening.
2. Preparation of the revised 2000 ALADIN Memorandum of Understanding:  
Potential intermediate status between nothing and full membership  
Review of the commercialisation policy.
3. ALATNET.
4. Approval of the revised second Medium-term (1999-2001) research plan for ALADIN.
5. Assessment of the 1999 scientific programme and presentation of the 2000 scientific programme.
6. 2000 ALADIN Partners commitments and 1999 commitments assessment.
7. Commitments for the ALADIN school on high resolution modelling
8. Technical overview of the project at the end of 1999 and 2000 prospect.
9. Commitments for maintenance effort.
10. Verification's project.
11. Date and place of next Assembly.
12. AOB
13. Closure.

### **Annex B**

#### **List of Participants**

Chairman

C. TAVARES (Portugal)

Austria

P. STEINHAUSER (ZAMG)

Belgium

A.QUINET (IRM)

Croatia

Z. SUBARIC (DHMZ)

Czech Republic

I.OBRUSNIK (CHMI)

France

O. MOCH (MF)

J-F GELEYN (MF)

E. LEGRAND (MF)

D. GIARD (MF)

Hungary

I.MERSICH (HMS)

Morocco

A. MOKSSIT (DMN)

Poland

S. REICHHART (IMWM)

J. ZIELINSKI (IMWM)

Portugal

M. CONÇALVES (IM)

C. MADEIRA (IM) - morning

F. PRATES (IM) - afternoon

Slovenia

D. HRCEK (HMI)

Observers

Local Committee

M. ALMEIDA (IM)

**ANNEXE C****MAINTENANCE EFFORT IN 1999****(updated with realised commitments)**

Partner	Phasing / Maintenance		Commitment		Part (%) of	Target contribution	
	stays	months	persons	months	maintenance	stays	months
<b>Belgium</b>	1 / 4	0.5 / 3.5	6	47.0	1.1 / 7.4	1 or 2	4.5
<b>Bulgaria</b>	3 / 3	4.0 / 4.0	3	21.0	19.0 / 19.0	1	2.0
<b>Morocco</b>	3 / 3	4.0 / 4.0	5	32.5	12.3 / 12.3	1 or 2	3.0
<b>Poland</b>	- / -	- / -	5	28.0	- / -	1 or 2	3.0
<b>Portugal</b>	- / -	- / -	3	13.0	- / -	1	1.0
<b>Romania</b>	1 / 3	1.0 / 3.0	7	32.5	3.1 / 9.2	1 or 2	3.0
<b>LACE</b>	5 / 8	7.0 / 10.5	31	185.5	3.8 / 5.7	7 or 8	18.0
<b>France</b>	7 / -	12.0 / 25.0	5	46.0	26.1 / 54.3	5	10.0
<b>Total</b>	20 / 3	28.5 / 50.0	65	405.5	7.0 / 12.3	20	44.5

Notes:

The contribution of France mentioned here is that of the ALADINteam only.

The (minimum) target contribution is defined:

- following the proposed rules for phasing stays
- as 10 % of the total effort for maintenance (except for the Toulouse support team).

Some deported contributions were taken into account:

- 2 for phasing ( $\frac{1}{2}$  month for Be, 1 month for Cz)
- 4 for other maintenance actions (2 months each for Be and Si)

There is an increasing (and welcome) effort concerning documentation.