Draft Minutes of the 11th PAC meeting
19 May 2014, Lisbon, Toulouse

Participants : Philippe BOUGEAULT (MF rep.), Radmila BROZKOVA (LACE rep.), Fatih BUYUKASABBASI (PAC Vice-Chair), Claude FISCHER (CSSI Chair), Daniel GELLENS (non-LACE non-MF rep.), Sylvain JOFFRE (HAC chair, HIRLAM obs.), Alain JOLY (MF rep.), Maria MONTEIRO (non-MF non-LACE rep.), Vladimir PASTIRCAK (LACE rep.), Patricia POTTIER (Secretary), Michael STAUDINGER (PAC Chair), Piet TERMONIA (ALADIN PM), Yong WANG (LACE PM)

1. PAC Chairperson opens the meeting

2. The following agenda is proposed and adopted.

> 1. Opening by PAC Chairpersons
> 2. Adoption of the agenda
> 3. Final approval of the minutes of the last PAC meeting
> 4. Link with HIRLAM: discussion of the common meeting
> 5. PAC matters arising from previous ALADIN meetings
> 6. Activity report (issues related to ALADIN; more discussion in the common HAC/PAC meeting)
> 7. ALADIN Policy issues
>   7.1 Licenses; universities, OOPS, OpenIFS
>   7.2 Free data policy in Europe
>   7.3 EUMETNET matters
>   7.4 Requests for new membership
> 8. Resources matters
>   8.1 Manpower status
>   8.2 Budget matters
>   accounting of the ongoing 2014 budget
>   PAC's first guidance for the 2015 budget
> 9. A.O.B.
> 10. Date and place of the next meeting
> 11. Closing of meeting

3. The minutes of the 10th PAC meeting are approved without changes.

4. Link with HIRLAM : discussion of the common meeting

Piet proposes to first move to point 5, as an introduction to this point 4. The PAC members agree.

5. PAC matters arising from previous ALADIN meetings

Piet takes the floor and reports on the main decisions from the last General Assembly (GA), held in Tunis, on November 14-15, 2013 :

– approval of the organisation of a forecasters meeting in 2014;
– acknowledgement of the importance of the ACNA role on technical and operational-type activities;
– mandate given to PM to agree, on ALADIN's behalf, on a rotational funding for maintaining the global lake database;
– task force on data policy : the task force should finalise its Term of References (ToR) and make suggestions about its membership;
– merge with HIRLAM : focus on actions that would bring convergence on system/maintenance to fruition; going toward a common governance but not for the next MoUs (still two separate consortia for 2016-2020), organisation of common meetings (HAC/PAC, Council/GA);

– <mark>task force for the renewal of the MoUs</mark> : considering still two separate MoUs, the task force should identify which points should be addressed in the common parts, in the aim to write MoUs that optimize the collaboration while preparing a vision for a future merge.

Sylvain explains that the (HIRLAM) Council shared the same opinion on the last three points (merge with ALADIN and task forces).

Back to point 4 : Link with HIRLAM : discussion of the common meeting

Piet presents his personal opinion on the possibilities for closer collaboration between the ALADIN and the HIRLAM consortia (see the preparatory document 4) :
– He gives an update of the evolutions since last PAC/HAC meeting Toulouse last year, stressing that the document produced at that time has been complemented with input from Météo-France and from LACE. The latter stressed particularly the care for code and system maintenance and stressed the question of the manageability of a consortium with 26 or more countries.
– He points out a difference in scope between the different MoUs. Roughly speaking, ALADIN is a code collaboration (development and central maintenance) leaving a lot of freedom to the partner countries to implement the system locally and without being explicit about quality assurance, whereas HIRLAM has a Management Group that provides a centralized effort to port the system in the countries and even provides a level of quality assurance through a reference system.
– The HARMONIE system is not only a model but a validation tool. ALADIN is evaluating the HARMONIE system that proves promising (cf HARMONIE system working week in Ankara, October 2013) but needs further developments (another HARMONIE system working week will be organised in Bratislava, October 2014).
– He addresses the question whether a future consortium of more then 26 countries could be manageable but thinks that to have one super-structure with sub-consortia is feasible (like it currently successfully works with LACE in ALADIN) : while the ALADIN MoU stays light in scope, LACE <mark>can collaborate</mark> more on data assimilation, data exchange, quality assurance ... <mark>on top of the collaboration on the common code at the level of the whole super-consortium</mark> (common code with interfaces allowing a maximum freedom in the components choice, common validation, ...).

Radmila warns about the importance of an accurate definition of the common code and the rules that apply when using the products made with it. She explains the problems CHMI faces with the Norwegian data policy : forecasts over all Europe are published for free on the Internet by met.no, without any indication on how these products are made (using IFS and/or HARMONIE).
Daniel proposes to put HIRLAM and ALADIN products in the ECOMET framework to help finding a solution.
The current MoUs have only rules for commercial uses (not for free dissemination) of the products and only refer to data submitted to the INSPIRE directive. The borders between data and products, and between commercial use and free dissemination are to be agreed on (i.e. products given for free on the internet but money made from the publicity on the website). See discussions about the data policy task force (point 7.2).

<mark>Piet presents a rough synthesis of how the ALADIN consortium goes from science to applications</mark>, underlining the similarities, the differences and the complementarities with HIRLAM practices and the actions already taken and the possibilities for a better common work and a further convergence. <mark>This synthesis (see the graphic below) could structure the future MoUs :</mark>
– the red line differentiates between the code-collaboration part and the quality assurance,

– we need to converge on the upper part (transversal work on the common code) and clarify the content and the manpower dedicated to the "red box" (scalability, efficiency, portability); if the next MoU could have a common part that is structured around this, then this could be the basis for the future super-consortium;

– in the lower part, the super consortium cooperates on quality control **tools** such as APMT (ALADIN Performance Monitoring Tool), HARP (HIRLAM ALADIN R Package, for science), the HARMONIE system (validation of the cycles, platform to inter-compare) while the sub-consortia manage/monitor closer their operational systems and their quality assurance. Said differently they collaborate on the quality-control tools while leaving the *responsibility* of the national quality within the subgroups with respect to their own governances.

– the upper-level isn't responsible for the local implementations in each country nor the quality of their products and no deliverables for end users should be expected from the super-level.

– The crucial part, where the collaboration should be strengthened is in the box on algorithms (scalability/efficiency/portability). Piet proposes that this is the aspect where some funded coordination will be useful for the next phase of the MoUs. If PAC (and HAC) agree on the structuring along this diagram, he will make a proposal for this strengthening.

From science to operations summarized on 1 sheet
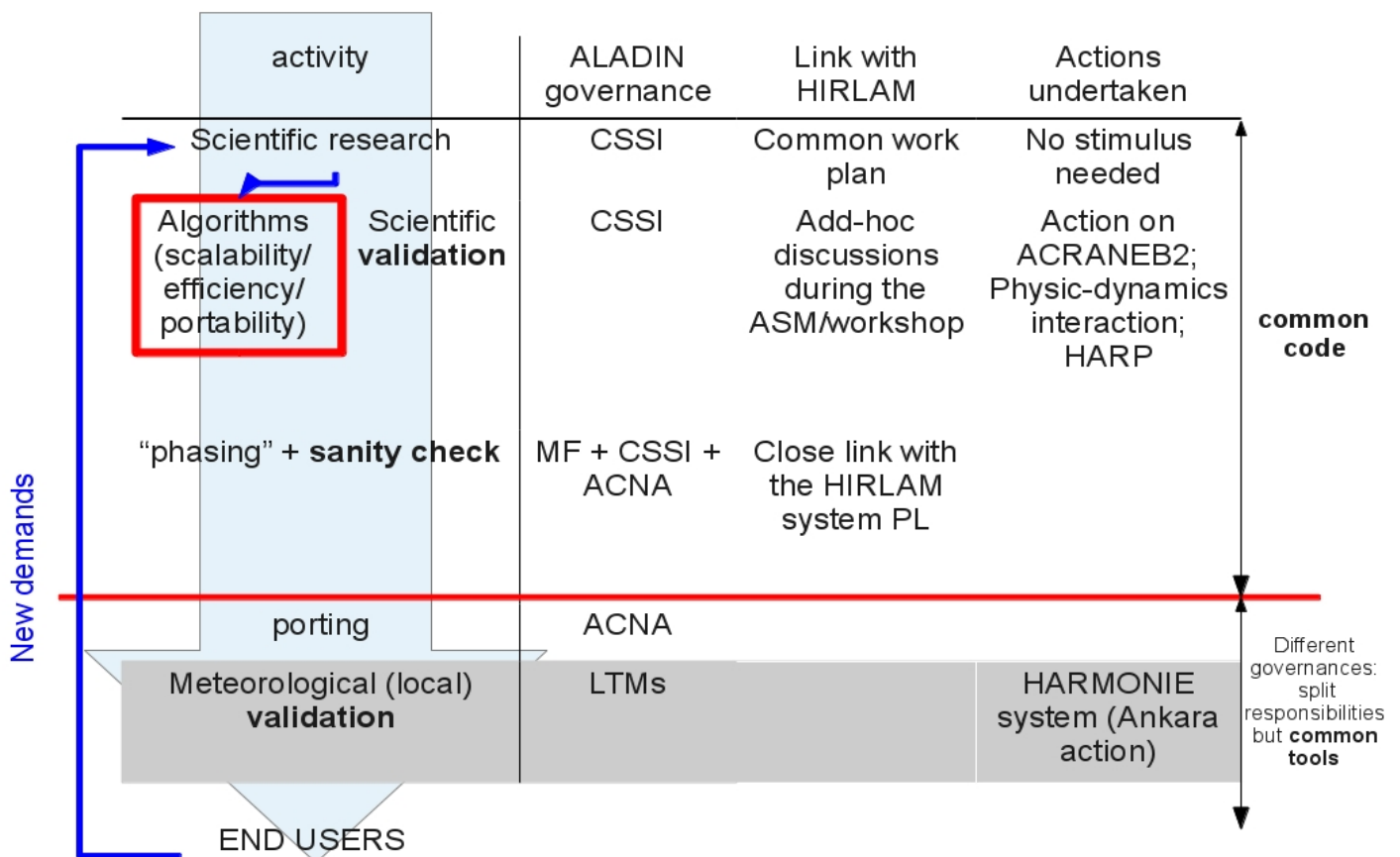
Philippe congratulates Piet for his excellent summary of the current situation. Piet explains that if the Directors agree on his proposed future super-consortium, the "red box" should be strengthened but only slight adaptations would be needed at the governance level for a future merge.
Michael and Sylvain strongly support Piet's approach.

6. Activity report (issues related to ALADIN; more discussion in the common HAC/PAC meeting)

Piet has sent a draft version of the activity report (see preparatory document 6). He briefly underlines the most important points :

– the efficient work of the ACNA (ALADIN Coordinator for Networking and Applications),
– a very good HMG/CSSI meeting chaired by Claude (with more concerns on code implementation, as it could be proposed for the CSSI ToR in the next MoU),
– the progresses on a common flexible physics-dynamics interface,
– the common LACE observation pre-processing system (OPLACE), providing operational real-time data to LACE members,
– the finalisation of the ALADIN Performance Monitoring Tool,
– the first steps toward 1 km resolution operational runs with AROME,
– the further testing of the Vertical Finite Elements
– some evidence that A-grid (or Z-grid) could be a medium-term good solution for the dynamical core of our models
– some interesting results from HIRLAM colleagues on the use of the MIC system (processors using Many Integrated Cores) compared to classical processors, in a hope to avoid recoding of the Fortran code to some specific language fit for the future machines (GP-CPU),
– the testing of the HARMONIE system (the forecast model with a scripting system to set up experiments and a package for verification) to validate the installation of a new cycle in an ALADIN country,
– the test of operational running of SURFEX combined with ALARO,
– the documentation on some interesting cases where the high resolution runs with our models demonstrated added value with respect to the IFS.

Alain comments on Piet being too optimistic on the potentiality of the MIC system.
Piet should still have the activity report cross checked by the CSSI members and the activity on data assimilation added.
A final version of the activity report will be produced.
Philippe congratulates Piet on the good realisation of the work plan.

7. ALADIN policy issues

- **7.1 Licenses; universities; OOPS, OpenIFS**

Philippe presents the OOPS contributor agreement proposed by ECMWF, to be signed by each service which wants its people to contribute to the Abstract Layer (C++ code) of the ECMWF's OOPS project. In order to have as many feedbacks as possible from scientists (including US scientists), ECMWF will licence the Abstract Layer under Apache 2 open source licence terms. Thus, ECMWF needs to make sure that everybody contributing owns the Intellectual Property Rights (IPR) of his contribution.
If ALADIN consortium has no argument against, Météo-France will sign the contributor agreement. HIRLAM consortium has decided to sign it also, as a consortium.
PAC recommends that ALADIN signs the OOPS contributor agreement as a consortium and proposes that this be done by the GA chairman after email consultation of the GA members, not waiting for the next GA meeting.

The latest ECMWF Council approved the free distribution of OpenIFS software for educational use and/or use for non-commercial research, with a scope limited to global forecast (no data assimilation, nor LAM, nor non-hydrostatic). Philippe explains that Météo-France allows ECMWF to distribute on its behalf the parts of OpenIFS that have been developed by Météo-France or jointly with ECMWF, without giving its IPR to ECMWF. ==Météo-France has agreed on the software licence proposed by ECMWF to OpenIFS users, and this discussion has been formally settled in a bilateral EC/MF agreement== (see preparatory document about the OpenIFS license).

- **7.2 Free data policy in Europe**

In complement to the previous discussion (see point 4), Piet presents the draft ToR of the data policy task force, as proposed by Michael after the previous Friday's web-meeting of the task force.
The ToR should be agreed on with HIRLAM and will be discussed during the ensuing HAC/PAC meeting.
So far, the task force has considered different options, some needing amendments to the MoUs, the last one being the abandon of the ALADIN/HIRLAM merging if business models are considered too different. Sylvain explains that the position of the Norwegian data policy expert (in favour of the last option) was the result of a misunderstanding and the task force should continue to seek possible options for a common position.
==PAC recommends that the Task Force continue to look for a compromise for the data policy and propose a solution acceptable for every ALADIN/HIRLAM NMSs.==

- **7.3 EUMETNET matters**

The ALADIN GA gave the ALADIN PM a mandate to agree on ALADIN's behalf on the rotational funding of the Global Lake Data Base (GLDB) maintenance. An ALADIN funding is expected for 2015. However, the work plan of this action has still to be written down by the GLDB team.

- **7.4 Request for new memberships**

Piet shows the letter sent the previous Friday by the Republic HydroMeteorological Service of Serbia (RHMSS) to the ALADIN GA chairman. They ask to join, as observer, the forthcoming GA meeting and propose to host some of the ALADIN officials in their headquarters in Belgrade.

==PAC recommends to first improve the scientific exchange== (to ask them to attend a scientific meeting to present their work and their wishes, i.e. next EWGLAM meeting) and then ==to clarify the formal part of their demand== (they should follow the acceding procedure as Piet will explain them).

8. **Resource matters**

- **Manpower status**
Piet presents the manpower accounting (see preparatory document 8.1), updated at the end of 2013. Nowadays, the cumulated manpower is equivalent to 80 Full-Time Equivalent (FTE) persons per year, with all partners significantly contributing to the manpower. The mean partial time (the quotient when dividing the number of active participants by the FTE) is increasing and reaches 50% in 2013, as more work is done by "key" persons, working mostly full-time on ALADIN.
As discussed during the PAC meeting in 2012, the registration now also contains details on the work on the code. Only 3% of the manpower is dedicated to the code design (so far mainly triggered by the ECMWF coordination). Piet underlines the importance of increasing the manpower dedicated to code design as previously discussed in point 4 (cf. "red box").

In view of the plans for the next MoUs and the importance of code (cfr. box on algorithms in the diagram), PAC asks for an estimation of the target manpower for code design.

- **Budget matters : accounting of the ongoing 2014 budget, PAC's first guidance for the 2015 budget**

No comments are made on the accounting of the on-going 2014 budget (see preparatory document 8.2.1).

A proposal for the 2015 budget has been prepared (preparatory document 8.2.2), with a flat-rate contribution adjusted to the inflation (8890€) in order to balance the resources and the usual expenses (contribution to the annual workshop, PAC, CSSI and LTM missions, research and development visits) plus the funding of the GLDB maintenance (see point 7.3)

PAC recommends to follow the inflation and have a flat-rate contribution at 8890€.

9. A.O.B.
None.

10. Date and place of the next meeting
During the ensuing HAC/PAC meeting, it is agreed to have the 2015 common HAC/PAC on May 21, in the afternoon, in Helsinki. Thus, the 12th PAC meeting will take place in Helsinki on 21 May 2015, in the morning.

11. PAC Chairperson thanks the participants and closes the meeting at 12:20.