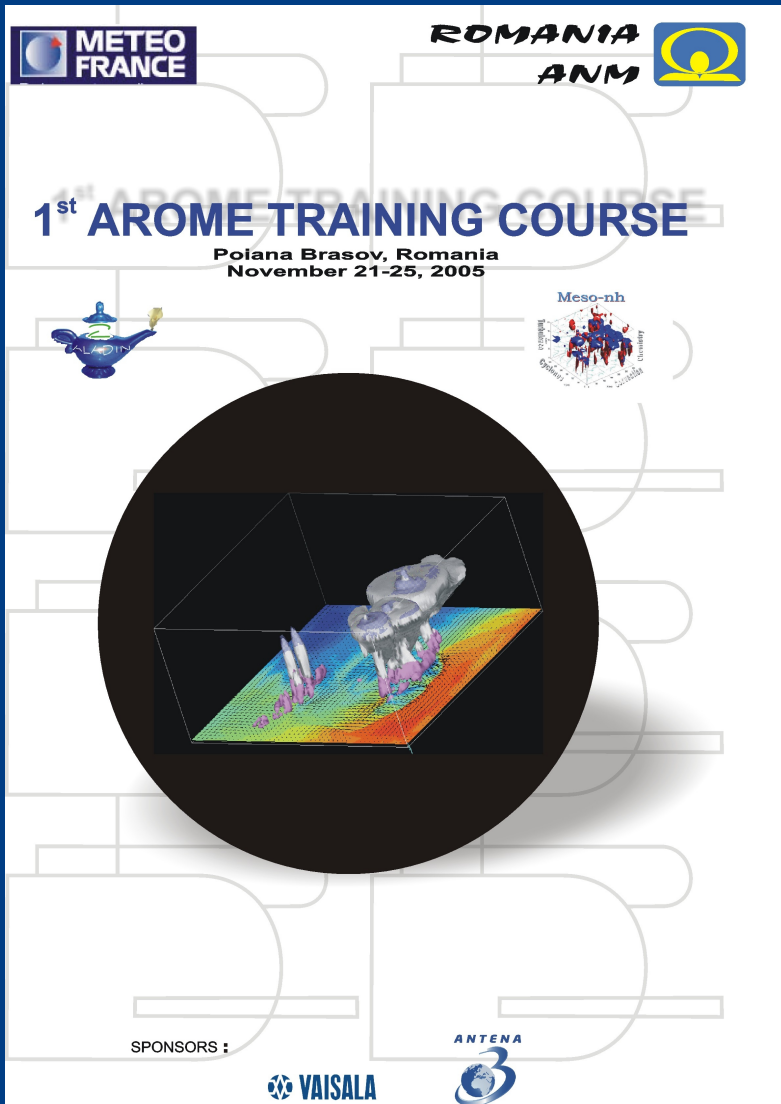


Debriefing of Lisbon AROME training course

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(**) Météo-France



METEO FRANCE

ROMANIA ANM

1st AROME TRAINING COURSE
 Poiana Brasov, Romania
 November 21-25, 2005

Meso-nh

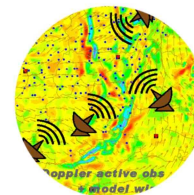
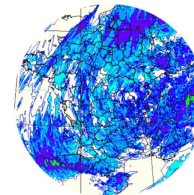
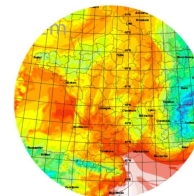
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**2nd AROME
 Training Course**

4 - 7 March 2008
IM Headquarters, Lisbon, Portugal



Sponsors

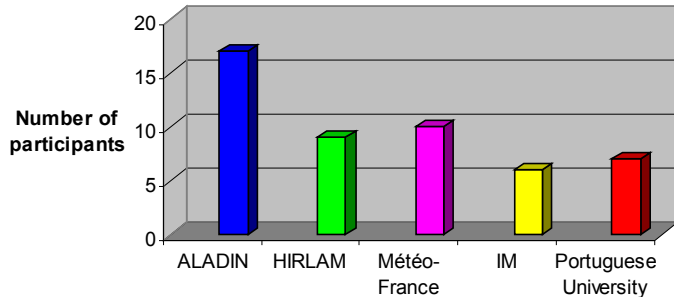


AROME training course structure

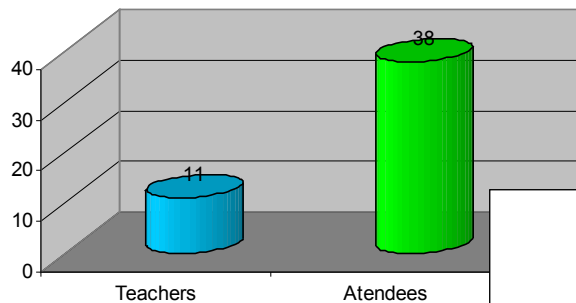


AROME training course population

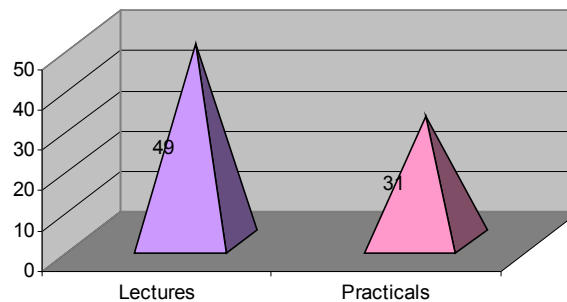
Participants distribution by groups of interest



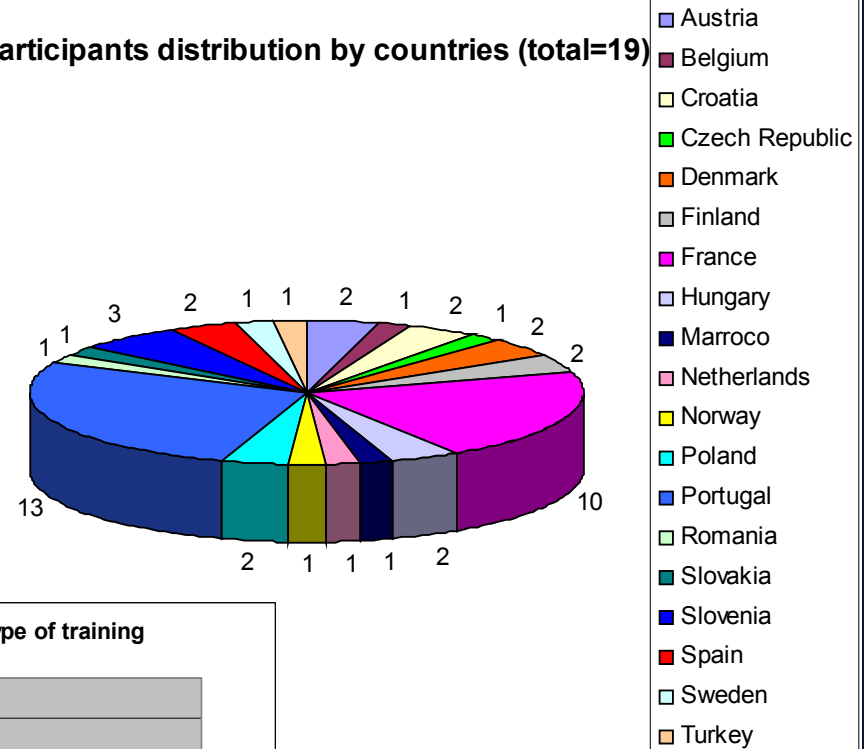
Teachers vs attendees



Participants distribution by type of training



Participants distribution by countries (total=19)



What did we learn (1/4) ?

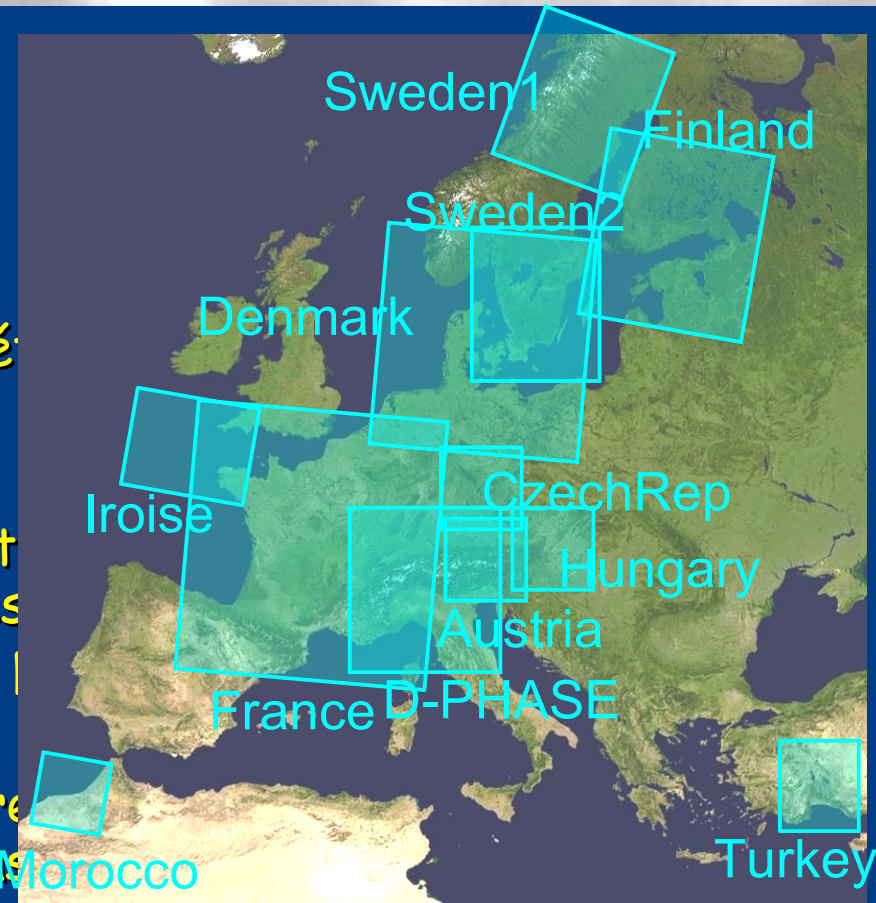
Overall view:

- AROME will be an operational model in Mét in 2008

- Forecasters have to learn how to use the output of larger scale models small scale structures and favorable conditions for such events could be identified

- Training course good organization was reached between theoretical and practical sessions was

- Increasing interest of meteorological community on performing AROME runs/experiments



What did we learn (2/4) ?

Technical view:

- It is possible to run AROME (research mode) by 3 different ways: HARMONIE, using ECMWF computer facilities (the last for MS only) and through a Météo-France web interface of OLIVE
- Practices have shown that it can be quite easy to run AROME academic exercises
- GMKPACK is an accessible tool to help installing the code under Linux environment (common university platform)
- Available documentation at <http://www.cnrm.meteo.fr/gmapdoc/>

What did we learn (3/4) ?

Scientific view:

- **Dynamics:** EE, academic testings + LBC problems (unphysical rainfall on the coupling zone); horizontal diffusion strength=>fireworks
- **Physics:** subgrid cloud scheme, precipitating schemes + added value of AROME physics compared to large scale models; inclusion of aerosols just for diagnostic fog and Sc; not possible to include 3D turbulence for the time being
- **Data Assimilation:** (3Dvar)RUC, assimilation of time and space frequently spaced observations; ensemble method to determine the background-error statistics; small scale structures are better represented now; assimilation of radar doppler winds; radar reflectivities assimilation has to be worked out

What did we learn (4/4) ?

Future directions:

- The inclusion of practice classes are an added value for the training courses
- Man power is required on critical topics to keep collaboration with ECMWF (VFE, ex.)
- There is an open door for research interaction with academia, but more (better) documentation is needed and besides data formats should take into account the research environments (netcdf instead of lfa/grib)
- The necessity to find an efficient way to communicate inside the AROME users community
- An AROME user's meeting could be planned for the near future

Acknowledgements paid to those who were not visible:

Météo-France...still -> Yann Seity, Jean-Daniel Gril

ECMWF-> Carsten Maass, Umberto Modigliani (User Support)

IM -> Fernando Oliveira, Ana Ferreira, ... many others

ALADIN (Romania in particular) & HIRLAM communities

Portuguese Lisbon & Évora University colleagues