

Actions and plans 2008

Dijana Klarić
RC LACE Project Manager

Met service of Croatia



SRNWP Consortia in Europe



ALADIN

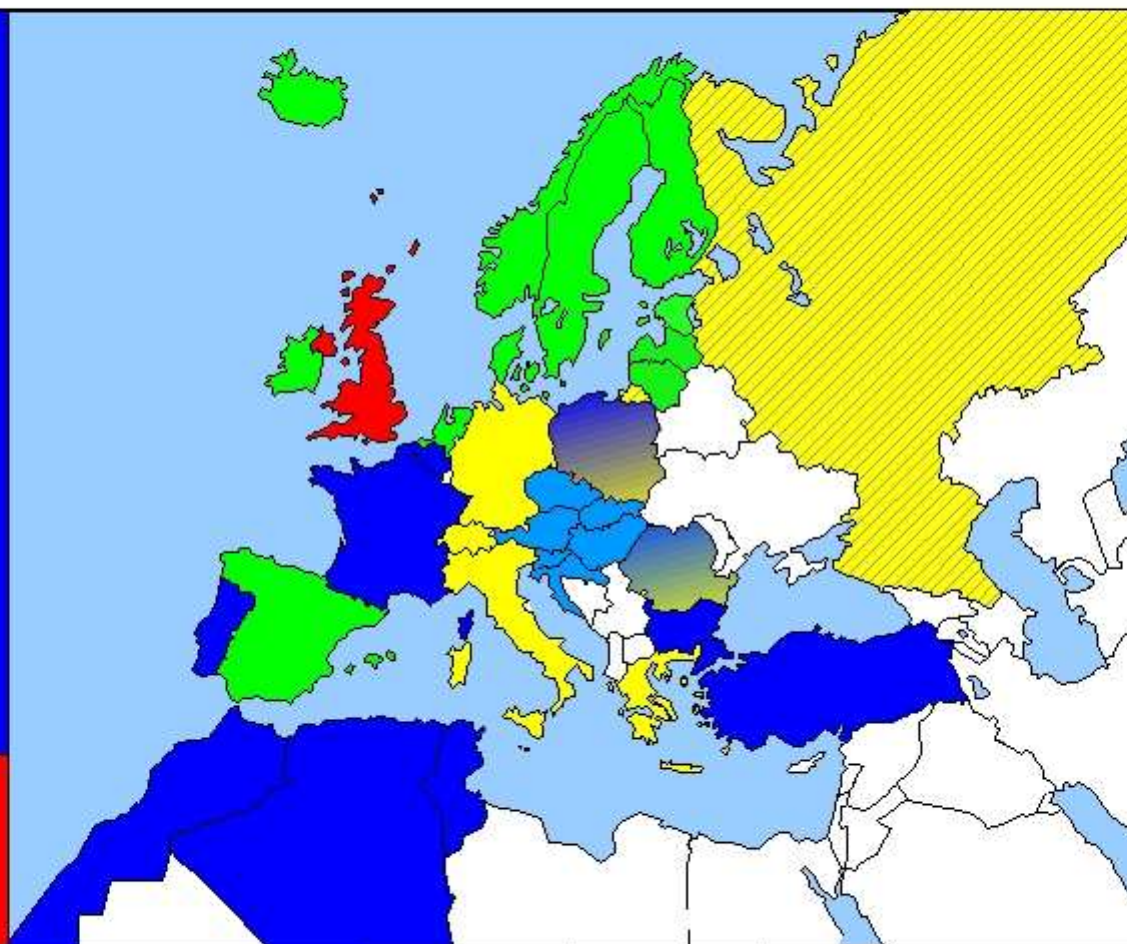
Algeria
Belgium
Bulgaria
France
Morocco
Poland
Portugal
Tunisia
Turkey

Austria
Croatia
Czech Rep.
Hungary
Romania
Slovakia
Slovenia



UKMO

United Kingdom



HIRLAM

Denmark
Estonia
Finland
Iceland
Ireland
Netherlands
Norway
Spain
Sweden
(Latvia)
(Lithuania)

COSMO

Germany
Greece
Italy
Poland
Romania
Switzerland
(Russia)



- ✓ **LACE New Cycle:**
from Evaluation toward New structure
- ✓ **Projects & Technical Actions**
- **R&D highlights**
- ✓ **Targeting**

LACE 10 years strategy

Project Evaluation (1996-2006)

- Independent advices about future development



Recommendations



To overcome the duplication of the operational efforts



To suppress draining of resources on maintaining and downstream applications.



To provide small NWP centers with a complete NWP system.



Stronger governance: more working hours for LACE MG



TASK Sharing via Lead Centers:



Operations and research

Implementation of recommendations

- Political decision for the closer operative cooperation
(**toward the Projects with operative deliverables**)
- Leading centers => **Responsible center**
- Bottom-up => **Top-down planning**

- **Projects** (priority list, deliverables, Responsible center)
- ✓ New Management Group: PM, 4AL, ASC, DA
- ✓ LACE MoU III (2008-2012)

- **LACE 10-years strategy**

Members:

Au-Cr-Cz-Hu-Ro-Si-Sk

➤ Co-operation:

- Projects => deliverables
- Long-term R&D
- Technical actions
- Operations

✓ RC LACE MoU III

✓ RC LACE Budget *

❖ 7 NWP teams

❖ LACE MG

Project Manager (100%),
4 Area Leaders (75%),
ALADIN SC, Data Manager
(50%)

✳ ALADIN partners

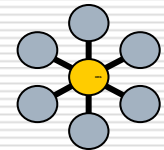
✳ HIRLAM

✳ SRNWP

Projects are bringing the top R&D toward operative use

4 Areas for R&D → 4 Projects

- Operational **3D Var system** for LACE (HMS)
Common observation pre-processing (HMS)
- Implementation of **ALADIN NH** dynamics (CHMI)
- Operational **ALARO phy at 5km** mesh size (CHMI)
- Common **ALADIN-LAEF** (ZAMG)
processed at ECMWF,
products at LACE WEB page



Operational 3D Var

Objectives

- ❖ Centralized preprocessing of observations
- ❖ Installation of atmosph. (3DVAR) and surface (CANARI OI) analysis systems in LACE centers
- ❖ Enhanced use of high frequency observations

Deliverables/Users

- **Observation collection and preprocessing at HMS**
(int. and national data)
- **data monitoring reports**
- **Working packages 3DVAR (upper air) and CANARI OI (surface)**

Implementation of ALADIN NH dynamics

Objectives

- ❖ Validation of the current NH dynamics
- ❖ Improvements and development
- ❖ Code optimization of the NH dynamics
- ❖ Operational implementation

Deliverables/Users

- **debugging of current NH dynamics**
- **study of NH accuracy, noise, stability**
- **Hydr vs. NH impact studies**

Operational ALARO at 5km

Objectives

- ❖ Development of the schemes
- ❖ Scientific maintenance of the code

Deliverables/Users

- **improvements in radiation scheme**
- **3MT studies and code cleaning**
- **tools for HR validation**
- **validation of cloudiness**

Objectives

- ❖ *Uncertainties in analysis*
- ❖ *Uncertainties in model physics*
- ❖ *Cooperation with GLAMEPS*

Deliverables/Users

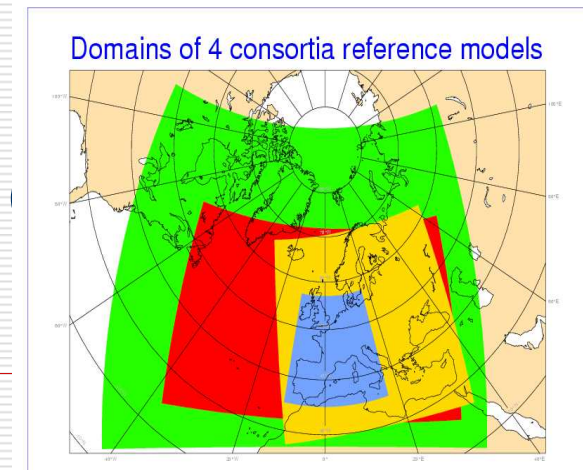
- **daily LAM EPS products for LACE members from ECMWF servers**
- **development of verification SW**
- **validation and calibration**

Status, Problems, Questions and Answers

- *HOW TO OBTAIN HUMAN POWER FOR time-critical ACTIONS?*
- Draining of scientists toward quick-win topics.
- What is the level of final deliverables?
(code or working packages for all HW platforms)
- Duplication of operative products vis lack of CPU for some EPS actions!

Common LACE technical actions

- *refreshment of **ALADIN Verification DB** (ARSO)*
- **LACE WEB pages** as live forum (SHMI)
- ✓ **ALADIN deterministic operative products (7 products + AR + EC+ LM)**
- ✓ **ALADIN pEPS Multigrams for LACE Capital cities**
- ✓ **ALADIN-LAEF (Limited Area EnsembleForecasting) probability charts and multigrams**
- ✓ **Verification packages**
- **Toward LACE Reference application**



Tasks

- ❖ *Optimization of ALADIN Verification tool*
- ❖ *Update of observation list*
- ❖ *Verification methods and deliverables*
- ❖ *DB Operative product maintenance*

Deliverables/Users

- **Efficient SQL DB**
- **Correct and regular inputs**
- **Redesign of user interface**
- **Regular verification reports for ALADIN newsletter and users**

To bring the quality on top of ALADIN project

To meet the regional needs for NWP end products and partnership

Focused on:

- *Use of research achievements in operations*
- *Optimal input data in operations*
- *Use the model output for the greatest gain:
partnership for regional climate change monitoring
severe weather monitoring*

