

HIRLAM external review: background, process

Customary to have programme reviewed by small group of external experts since HIRLAM-6

December 2014: Council decision to have mainly future-oriented external review. Prime focus on relation with Aladin and steps required for process of forming a joint consortium.

Review team: Dominique Marbouty, Peter Lynch, Tiziana Paccagnella

Visits, interviews, etc, also with ALADIN partners. First findings reported in Hirlam Council meeting of June 2015. Final report in September

Review team recommendations

- Support of the actions identified at the December 2014 Assembly/Council meeting. Active role of Council/Assembly seen as essential in tackling the issues mentioned in the Joint Declaration.
- Strive to have truly unified (not merely merged) scientific and work plans on the common R&D activities from 2016; Merge into common working teams and working weeks. Define consortium-specific activities as optional projects, separate from the common core activities
- Define scope and content of common code
- Urgent need for improving practice of code maintenance / evolution: towards one repository and more efficient/distributed phasing practice
- Data policy potentially divisive issue, although possibly only temporarily. DPTF report provides clear analysis, but needs solution at Assembly/Council level.
- New name needed for the joint consortium, accepted by all parties

HIRLAM-C

After cancellation of Algiers meeting: HIRLAM Council on 9 December, Reading
Signature of MoU for HIRLAM-C (Jan 2016 – Dec 2020)

Selection of new HMG:

PM: Jeanette Onvlee

PL Atmospheric forecast model: Lisa Bengtsson (SMHI)

PL Surface analysis and model: Patrick Samuelsson (SMHI)

PL Upper air data assimilation: Roger Randriamampianina (Met.no)

PL Predictability/ensemble forecasting: Inger-Lise Frogner (Met.no)

PL System: Daniel Santos Muñoz (AEMET)

PL Quality assurance: Bent Hansen Sass (DMI)

Scientific secretary: ?

First HMG meeting: 27-28 January, KNMI

New HAC chair: Heiner Kornich (SMHI)

Strategy 2016-2020

Strategic objectives as set by HIRLAM Council:

- Undertake necessary steps to prepare for formation of new joint A-H consortium by <2020
- Highest sci priority:
 - development of high-resolution (1-2.5km) short-range ensemble forecasting system suitable for operational use, in which ensemble generation, DA and forecast model are closely integrated
 - Detect and address systematic model weaknesses
 - Slightly lower priority: prepare model for operational use at increased resolution and for nowcasting range. Explore model behaviour at hectometric scales
 - Relatively low priority: continue to develop model towards more complete earth system model, focussing in coming years on sea/sea surface aspects
- Continue operational cooperation activities

Draft strategy being revisited by new team.

Aim: formulate joint Hi-Al scientific strategy and common activities for 2016-2020.

Strategy meeting: end of April Toulouse (focus on areas where ideas are not yet well aligned).

Aim during 2016-2020: towards fully common AL-Hi work teams.

Latest developments (scientific)

DA impact studies of high-res observations with 3- and 4D-Var
LETKF development

Cubic/quadratic grid tests: outcomes promising

New turbulence scheme HARATU, radiation changes and microphysics updates in Cy40h1

Surface: ISBA-Diff vs ISBA-FR testing in relation to snow fc issues. High priority tasks: detailed intercomparison of performance of both schemes, development of more sophisticated soil surface assimilation scheme.

GLAMEPSv3 preparations (8 -> 5km, new perturbations, calibration extended

HarmonEPS suites being introduced operationally by MetCoop, AEMET