Highlights and the start of a new phase

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Preparing for HIRLAM-C (2016-2020) …

• ...An external review
• ...Council agreement on new high-level strategy 2016-2020
• ...A new MoU
• ...A new management group
• ...Strategy meeting April, Toulouse
Highlights of the past year (a personal view)

- **Data assimilation and use of observations:**
  Operational implementation of various new hi-res observation types; extension of impact studies to 4D-Var; coming of age of 3D-Var/LETKF

- **Forecast model:**
  Radiation intercomparison and radiation – cloud – aerosol studies;
  The preparation and evaluation of the many new components in Cy40h1; Surfex-v8

- **GLAMEPS/HarmonEPS:**
  Preparations for operational introduction of GLAMEPS-v3 and several local HarmonEPS suites; improved calibration on widening range of parameters

- **Discussions on Harmonie for climate**
Towards greater flow-dependency and optimal use of high-resolution observations

- Assimilation of ATOVS, radar, GNSS, Mode-S, scatterometer, IASI, GPS RO ... being made operational
- Quality control assessment of radar data
- Scatterometer/ GNSS slant delay operators
- 4D-Var impact studies
- 3D-Var/LETKF: from first setup to experimentation
- Surface analysis: the challenge of introducing more advanced DA schemes to enable greater use of satellite data
- The introduction of a new turbulence scheme and adaptations in the radiation and microphysics schemes

- Continuation of the work on interaction between radiation, microphysics, clouds and aerosols

- The testing of cubic and quadratic grids

- Working on a consistent surface module+assimilation setup, starting experimentation with ISBA-DIFF soil scheme
Probabilistic forecasting

... HarmonEPS: introduction and testing of various new types of perturbations (EDA, physics, surface)...

... Improved calibration of larger set of screen-level parameters...

... Preparations for GLAMEPS-v3 and local operational HarmonEPS suites...
Validation, verification and system aspects

Extensive validation/verification and release of Cy40h1, preparations for Cy43T1

Harmonie-climate

Scientific documentation of Harmonie model/analysis system: publications in preparation
Towards a single consortium

Convergence actions:
- data policy discussions: getting closer to a new A-H Agreement
- joint strategy meeting 26-28 April
- definition of canonical model configurations and common code; code architects
- actions towards achievement of single repository
- consider revision of steering bodies
So, both on the scientific and organizational side...

Plenty of things to work on together and challenges to look forward to!

Have a productive and fun meeting!