



Highlights, challenges and preparations

Jeanette Onvlee

Workshop/ASM 2015, Elsinore

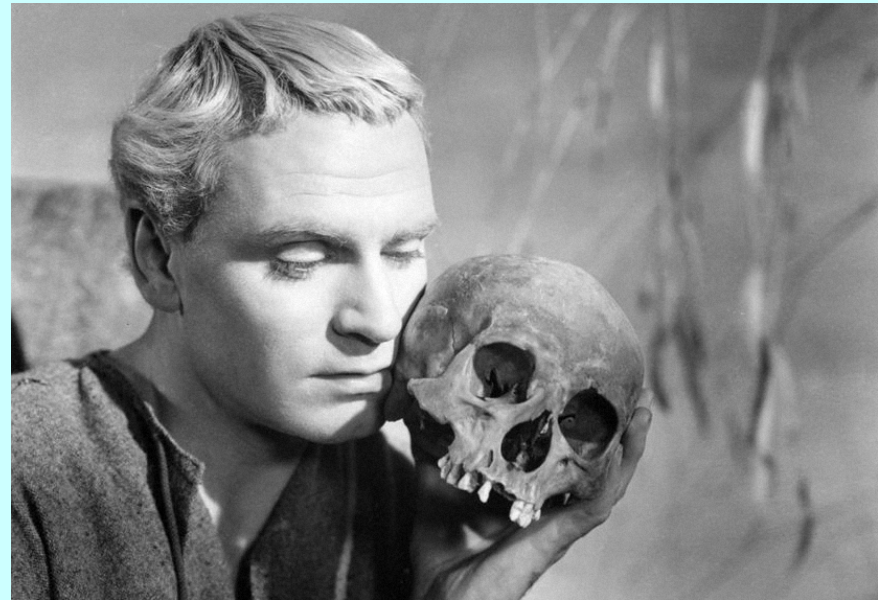
13 -16 April, 2015

Highlights of the past year (a personal view)

- ✓ **Data assimilation and use of observations:**
The search for flow-dependency and “proper” structure functions
- ✓ **Forecast model:**
Radiation – cloud – aerosol studies
Surfex-v8
- ✓ **GLAMEPS/HarmonEPS:**
Introduction of GLAMEPS-v2, a wider range of perturbations for HarmonEPS, and calibration for both
- ✓ **Validation/verification/system:**
HARP: the first release
the KNMI testbed
the ESCAPE proposal and the Nordic HPC initiative
- ✓ **Discussions on Harmonie for climate**

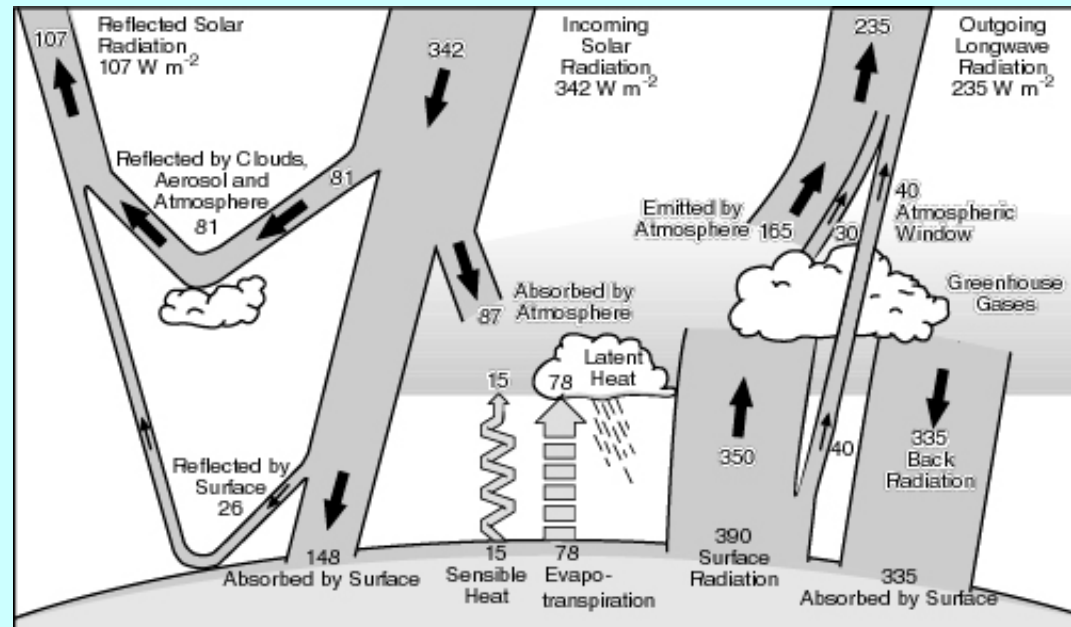
To benefit or not to benefit: The struggle for optimal use of observations

- Assimilation of ATOVS, radar, GNSS, Mode-S, scatterometer, IASI technically enabled
 - Many impact (RUC) experiments
 - Quality control still is serious issue
 - Real-time 4D-Var runs: meteorological performance OK but optimization of settings, computational performance on large grids still needed
 - Experiments showing limitations (e.g. balance, structure functions) of present 3D-VAR
- ⇒ Introducing greater flow-dependency matter of highest priority
- ⇒ At the same time, the challenge to realize this within OOPS



Physics and dynamics

- The continuing struggle for a full, stable NH VFE
- Low cloud/fog problems; some (partial) solutions, more questions
- Describing the interaction between radiation, clouds, microphysics and aerosols
- Making a start with the new physics-dynamics interface

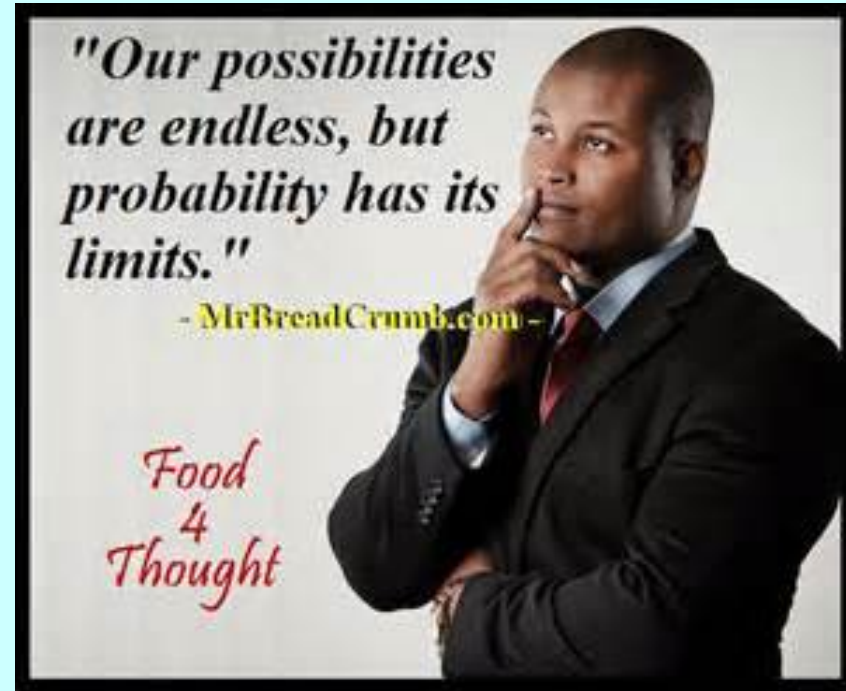


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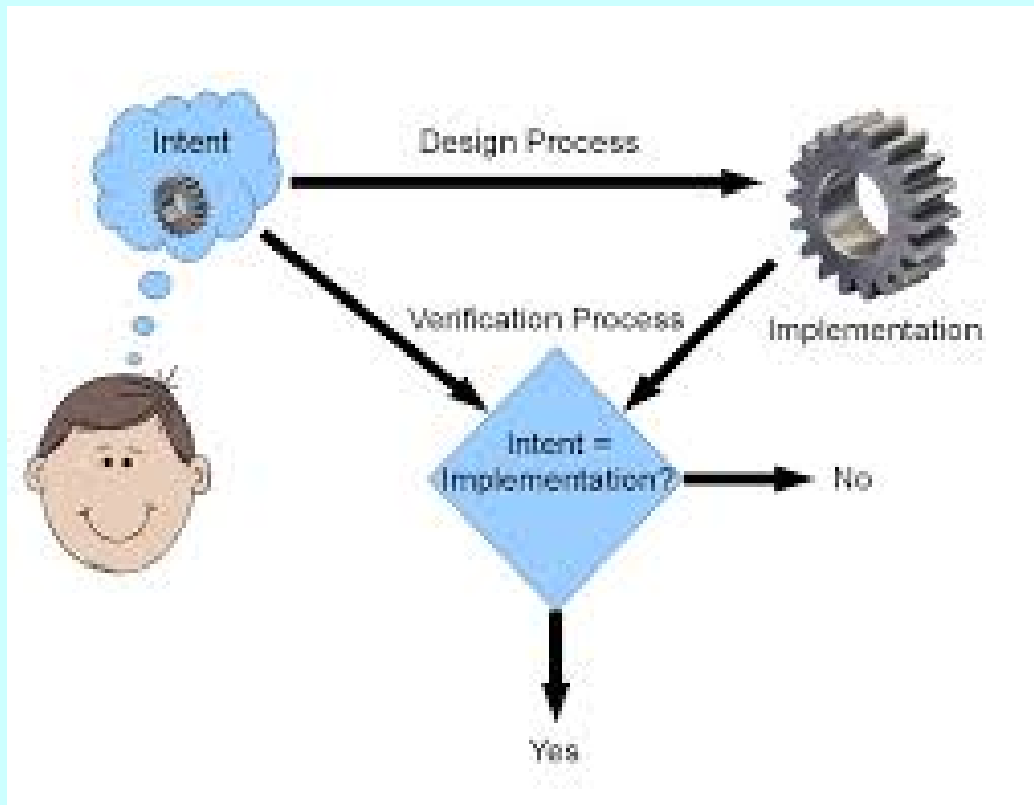
Probabilistic forecasting

- ... GLAMEPS-v2 introduction...
- ... HarmonEPS: introduction and testing of various new types of perturbations...
- ... Calibration of screen-level parameters...
- ... Experiments with LBC from ECEPS...
- ... Frost-14 studies...
- ... Preparations for GLAMEPS-v3 and local HarmonEPS suites...

See the presentations in the Predictability session



Validation, verification and system aspects



Release Cy38h1.2

Preparations for Cy40h1 and call for RCR

ESCAPE proposal: accepted

First HARP release

KNMI testbed

Bratislava ww

Preparing for a next phase ...



- Wrapping up the work on the main targets of Hirlam-B, plus...
- An external review
- Revision of the strategy 2011-2020
- Data policy task force
- A new MoU, a new project structure?
- Appointing a new programme manager and management group

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!