

Exploring possible solutions for a future common system

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Possible solution for a common system

- We would like to trigger a coordinated effort for porting and validation of new cycles within the partners, with the deal that some extra workforce would be needed (inside ALADIN). This effort would turn into a benefit for both the consortia, because it would save time and manpower to all in the long term;
- We intend to collaborate with HIRLAM (expertise and tool) and Météo France (expertise) in issue;
- We would like to build as transparent as possible system, where the different schemes and methods will have the same key settings (exclusively set by experts) at each centre;
- Risk factor: The realization of this idea will demand continuous participation of the experts from different areas (schemes and methods), which can cause serious impact on the final results;

Possible common/shared management between ALADIN, LACE and HIRLAM

- ➔ If the above described common system has been built, lot of tasks become common as well;
- ➔ The common tasks can be handled/solved using common external projects (for ex. We can apply for a special project at ECMWF and handle a common SBUs)
- ➔ List of common tasks (a kind of more concrete definition of what is in the rolling plan) should be prepared by the managers from both the consortia, then discussed with the interested centres;
- ➔ Duplication of work should be avoided in this case.
- ➔ This allow better management of improvement of the existing (operational) system and the scientific developments.

Harmonie system installation at OMSZ

- ➔ LSC in Bucharest decided to invite Ulf Andrae (HIRLAM system manager) to install the Harmonie system at OMSZ.
 - The aim of this initiative was to evaluate, with help of Oldrich Spaniel (ALADIN-LACE system Coordinator) the potential of the Harmonie system.
- ➔ Ulf Andrae visited OMSZ and successfully installed the Harmonie system. (financed by HIRLAM)
- ➔ The evaluation will start next week (Nov 19-23), but at OMSZ we already started to use the verification package of the Harmonie in our experiments, which I reported to the LTMs in Helsinki.
- ➔ Among the interesting tools in the Harmonie I've proposed to the LTM in Marrakesh to test the namelist maker and give feedback about their experience and expectations.

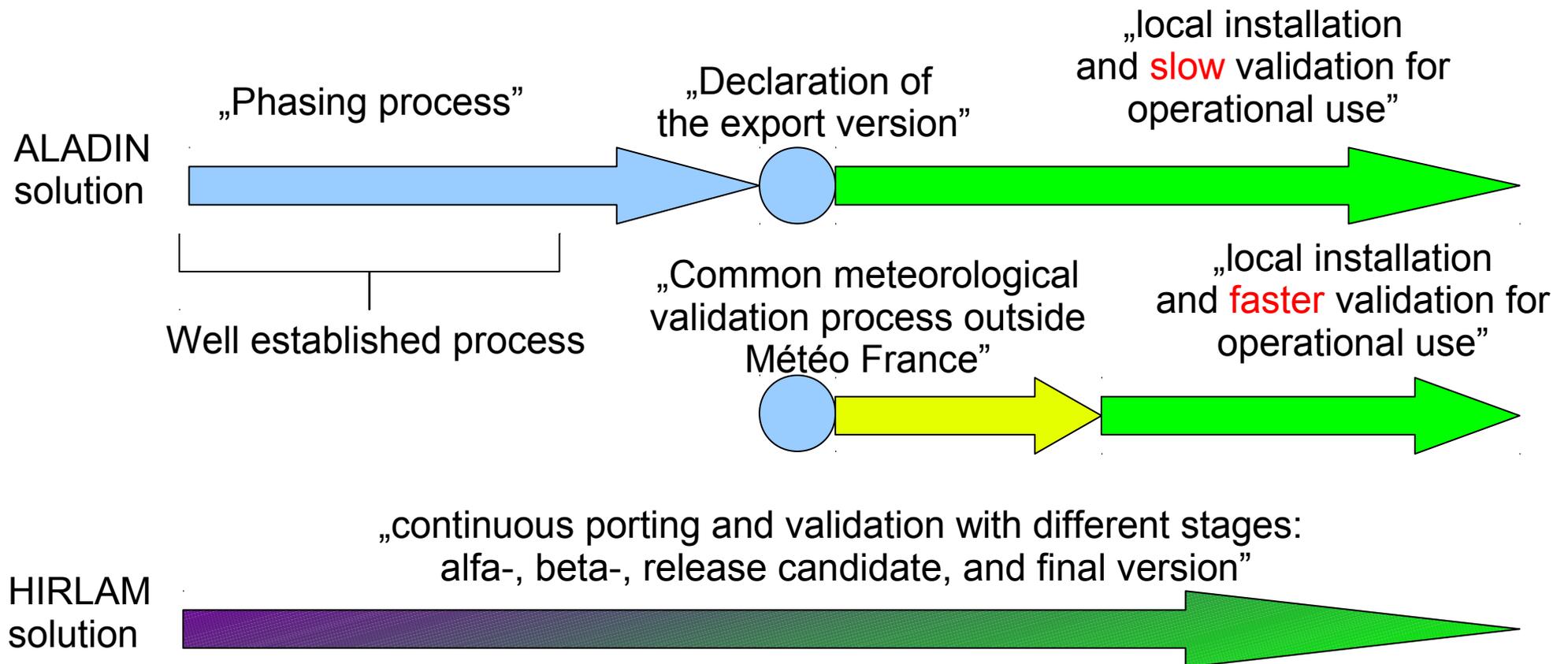
Motivations for namelist maker

- ➔ When I came back from met.no to OMSZ, I learned that my colleagues are still using the „old way” (see below) of porting/validating the export version of the new cycles. Very often this procedure deals with namelist settings.
There are at least two ways of doing this work:
 - 1- start with the namelists of the old cycle and add progressively the new features;
 - 2- start with the namelists in the export package and make it “compatible” with the local operational settings.
- ➔ This process is very time consuming! Hence, it is a serious „blocking factor” for most of centres to move to newer cycles for operational use.
- ➔ The example above may be typical only for Hungary, but very similar solutions are used at different centres causing slight differences in the operational applications.

How to speed up the porting of the new cycle and ease the local installation and validation?

using a namelist maker (a Harmonie tool) to build all namelists for the known schemes and methods;

→ with a simple “make” command one can create a set of namelists compatible with the chosen model configurations (ex. use ALARO, with SURFEX, OI_MAIN, 3D-Var, ...)



What is the advantage of having the common namelists?

- All settings in the common namelist will be exclusively controlled by experts. The collections of the different part of the common namelist will be done during the phasing period;
- This solution will allow more transparent view on different schemes/methods. We will be talking about the same thing when referring to those schemes/methods (ex. ALARO or ALADIN physics, etc ...). One just need to report about the additional settings on top of the common ones when reporting some problems or successes.

Risk factor

- Continuous participation of all the relevant experts is needed. Any delay of contribution can cause serious degradation of the common namelists.

Not only the namelists ...

- Together with the namelists, the new auxiliary files (constants, coefficients, etc.) will be also collected and documented.