



A Consortium for CONvection-scale modelling  
Research and Development

## Data Assimilation Sessions

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# Take home message (1)

- **On the DA activities**

- The DA Research and Support Teams were presented
- Reporting practice was introduced. *Interested to know Meteo France opinion about this*
- The planned ACCORD DA Working Weeks presented with call for contributions

- **From the sessions**

- **4D-Var:** Mixed results over the nordic domains; better performance over Iberian domain. Stably running at feasible costs. Running in pre-operational in MetCoOp
- **EnVar under OOPS:** Performance demonstrated through case study: 3D-Var < 3D-EnVar < 4D-EnVar.
  - On its way to be in pre-operational e-suite at Meteo France
- **Radar data:** HOOFF with superobbing developed
  - Radial wind: no dealiasing with inflated obs errors; different thinning distances and superobbing size (equal or different for rh/w) ⇒ gives very promising results
  - Assimilation of dry (non-rainy reflectivity) observations gives promising results
    - Checking different radars over Europe showed different processing at different centres wrt to low detectable signal making difficult the implementation of automatic detection
      - *To be communicated to OPERA development team*

# Take home message (2)

- **From the sessions**

- **Crowdsourced observations:**

- Successful collection, processing, and assimilation of smartphone pressure observations
  - *Each centre is kindly asked to consider the implementation of the Smaps app to collect observations from our service area*

- **DAsKIT:** Good progress: Surface & upper-air DA successfully implementation by some centres

- **Improving the use of observations:**

- high-resolution SAR observations
- low-resolution through footprint and supermodding operators
- more observations thanks to activation of LDYN key over land and sea ice

- **From side meeting:**

- To reduce the meeting time, consider more focused and reduced topics for Teams meeting
- To be discussed further at ST7 (Assimilation of (cloud free and cloudy) radiance dat), work out a common solution to follow the behavior of different satellite instruments

**Thanks a lot for the contributors !**