



## **DAsKIT: status (2020) & plans (2021)**

Compilation by M. Monteiro



# Outline

- > 2020 DAsKIT Achievements
- > 2020 DAsKIT Countries distributed efforts
- > 2021 DAsKIT Plans
- > Conclusions



# 2020 DAsKIT Achievements

## Planned/achieved

> **algorithms:** step-by-step towards local implementation of combined OI\_MAIN + 3DVAR DA (CY43T2)

1Q2020: BATOR conv observations

2Q2020: OI\_MAIN (surfDA) tuning and validation

3Q2020: OI\_MAIN tuning and validation; tackle baby steps onto 3DVAR

4Q2020: OI\_MAIN & OI\_MAIN+3DVAR, scripts, tuning and validation

> **observations pre-processing:** SYNOP, TEMP, AMDAR, connection between SAPP and T-codes

> **data monitoring:** impl. of OBSMON in all countries: connection between OBSMON and T-code

## Actions

> Video-confs: 25 March, 23 June, Dec (date to be decided)

> Newsletter article: *Maria Monteiro, Ouali Aitmeziane, Haythem Belghrissi, Andrey Bogatchev, Yelis Cengiz, Alex Deckmyn, Idir Dehmous, Fatima Hdidou, Wafa Khalfaoui, Marcin Kolonko, João Rio, Zahra Sahlaoui, Meral Sezer, Malgorzata Szczęch-Gajewska, Boryana, **The DAsKIT programme: status and plans**, ALADIN-HIRLAM NL 15, June 2020*

> 2020 Joint RC LACE DAWD and DASKIT WD: *national reports; 2 scientific presentations (humidity assimilation by F. Hdidou and Z. Sahlaoui); 2 exercises (OBSMON by I Dehmous; SAPP by Y. Celiz); planning of 2021 activities*

> Updated documentation on technical and management progress: *web, beaufix, LACE forum*

> HARP seminar (to be confirmed)

> 1 country (Belgium) started surf. operational DA (AROME OI\_MAIN) (for prognost. purposes)

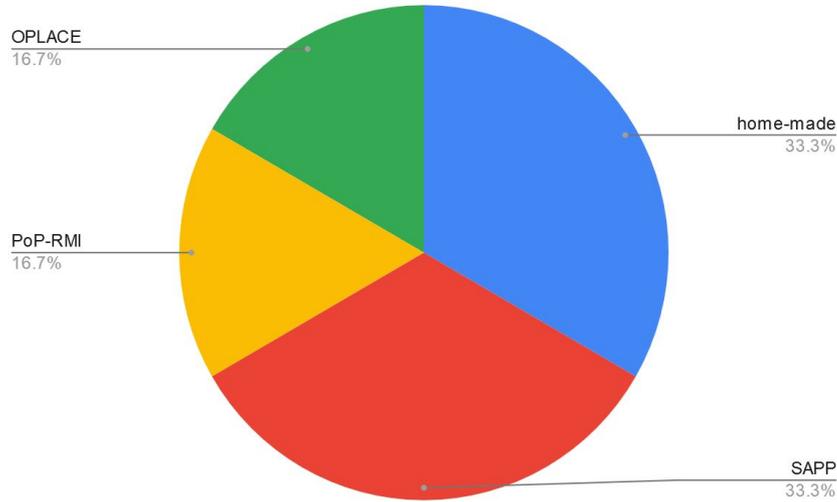
**Issues** lack or new HPC platforms; lack of man-power or newcomers; COVID-19....



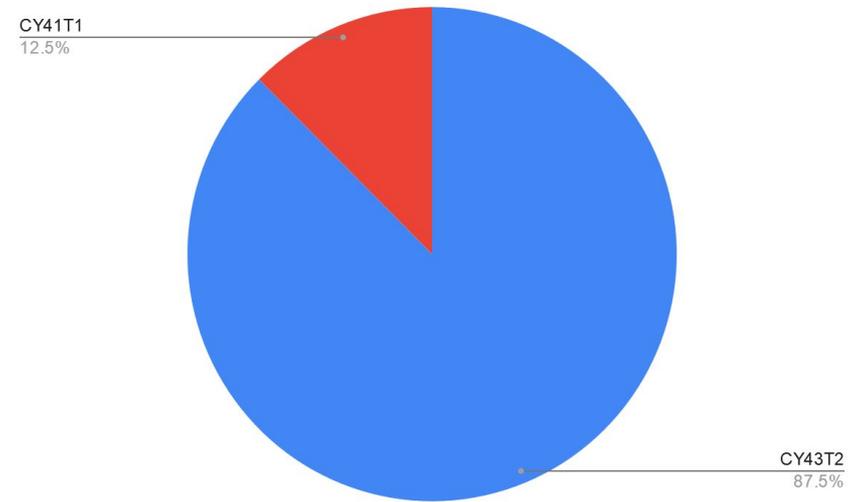


# 2020 DAsKIT Countries distributed efforts

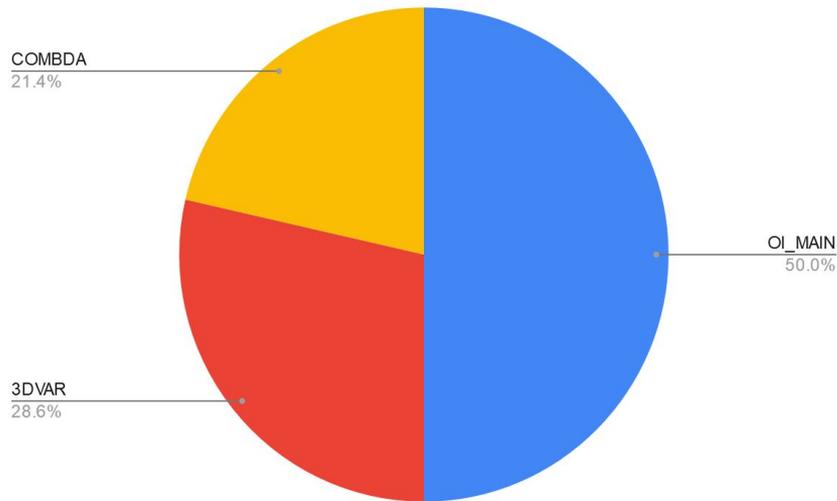
## Data Pre-processing



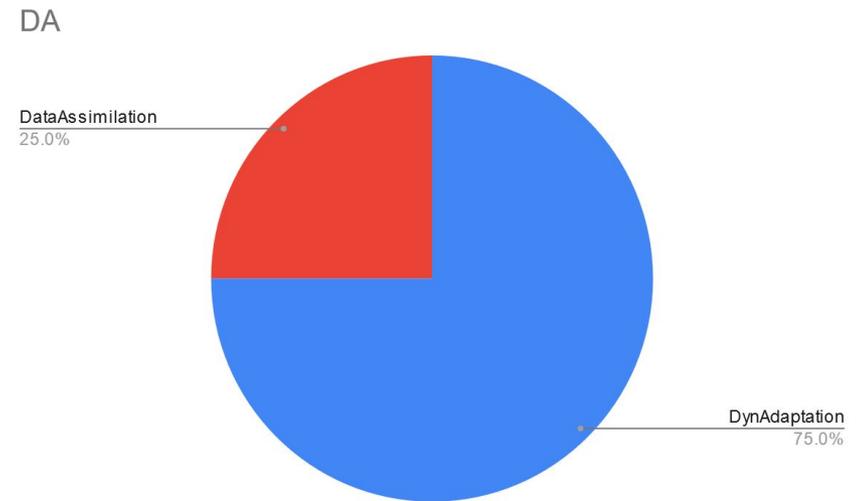
## Working cycle



## Algorithm concerns



## Operational conf.





# 2021 DAsKIT Plans

- > **framework:** RWP2021 DA8.1-6(new!)
- > **algorithms:** step-by-step towards local implementation of combined OI\_MAIN + 3DVAR DA (CY43T2)
  - sharing of the workflow by a “common” (?) scripts set and namelists
  - estimated background error diagnostics and B-matrix computation
  - tuning and validation of the combined DA solution
- > **observations pre-processing:** SYNOP, TEMP, AMDAR, BUOY [radar, GNSS, MODE-S]
- > **data monitoring:** implementation of monitoring procedures
- > **verification:** HARP implementation

## Actions

3 status video-conf and/or dedicated practical topics video-conf (to be recorded)

participation on the annual ALADIN-HIRLAM workshop (to be confirmed)

2021 Joint RC LACE DAWD and DASKIT WD

- . national reports
- . scientific sessions
- . practical sessions (B-matrix, to be confirmed)

**Expected Issues** lack or new HPC platforms; lack of man-power or newcomers; new COVID ;) ???



ZAMG



ARSO METEO  
Slovenia





# Conclusions

- > progress on DA activities in ALL countries is on-going and became visible at CY43T2
- > countries start to implement a local DA configuration into operations
- > know-how exists to locally ingest (BATOR) GTS WMO BUFR: SYNOP, TEMP and AMDAR
- > know-how exists to locally ingest SAPP BUFR (with T-codes): SYNOP
- > know-exists to locally use OBSMON (with T-codes)
- > 2021 plans include the common setup of a combined surface + upper-air DA cycling;
- > focus will be also concentrated to mitigate the actual lack of know-how on verification procedures and on B-matrix computation; besides,
- > countries start to be in conditions to share its know-how on new the use of data types: radar, GNSS or MODE-S.
- > the joint working days, with shared and parallel sessions has been found an optimal way to share expertise on different DA topics and to allow the alignment between the countries;
- > the practical sessions have been found an optimal way to share technical expertise, so dedicated video-confs (to be recorded) may be started besides/or in replacement of the actual quarter status video-meetings.
- > the DAsKIT programme has been considered very useful to boost the local DA activities
- > next video-meeting in December 2020; and many thanks for your collaboration and attention !