

## WP4 Facilitating downstream services (updated from Gé Verver)

**Task 4.1** – Establishing data services (ECMWF, KNMI)

**Task 4.2** – User-oriented products (KNMI, SMHI, MF)



*WP leader: Else van den Besselaar, Maarten Plieger, KNMI*

## WP4 Facilitating downstream services

### Task 4.1 – Establishing data services (ECMWF, KNMI)

WIKI inventory prepared describing all datasets being archived at ECMWF  
Subset of reanalyses in MARS at ECMWF (**D4.1**, M48): MARS archiving of reanalysis data in common format at ECMWF is ongoing

Data contents was defined 2015 but has taken a long time to "understand" and agree with metadata in GRIB2 which enforces more strict definitions

Operational archiving SMHI

MF and MO ready or test archiving (maybe one problem left)

COSMO almost ready but some issues to correct or check

Licence terms (see Consortium presentation)

*(progress report: Richard Mladek)*

## WP4 Data plan, UERRA RA output

### 2.1 Time steps for pressure levels

#### Analysis:

- Store analysis output in six hourly intervals at 00 UTC, 06 UTC, 12 UTC, 18 UTC for the

#### Unified Model and Harmonie

- Store analysis output in hourly intervals for COSMO

#### Forecasts for all models:

- T+1,2,3,4,5,6,9,12,15,18,21,24,27,30

started at 00 UTC and 12 UTC

- T+1,2,3,4,5,6

started at 06 UTC and 18 UTC

### 2.2 Parameters on pressure levels

Parameter	UM/4DVar UM/En4DVar (MO)		COSMO COSMO/En (HErZ/UB)		Harmonie/V1 Harmonie/V2 (SMHI)	
	Analysis	Fore- cast	Analysis	Fore- cast	Analysis	Fore- cast
cloud cover	X	X	X	X		X
cloud liquid water content (specific)	X	X	X	X		X
cloud ice content (specific)	X	X	X	X		X
geopotential height	X	X	X	X	X	X
relative humidity	X	X	X	X	X	X
temperature	X	X	X	X	X	X
U component of wind	X	X	X	X	X	X
V component of wind	X	X	X	X	X	X

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### Task 4.2 – User-oriented products (KNMI, SMHI, MF)

MARS connection to ESGF is being established within CLIPC;

ESGF nodes set up at STFC, KNMI, NSC/SMHI, etc. (to be done...)

Data visualisation prototype on the Climate4Impact portal based on ADAGUC has been extended. Implementation of ESGF (Earth System Grid Federation) node for at least one UERRA dataset (**D4.4**, M36) (*progress report: Maarten Plieger / Else vd Besselaar/Richard Cornes*)

INSPIRE compliant data dissemination plan; link to CLIPC data architecture plan (**D4.2** report delivered late but is useful and the actual data plan can be found in its appendix )



# How to use ESGF



- E-OBS data put on ESGF at KNMI
- Which data from UERRA – one year (2008) or (more useful) time series over 15 years say?

## D4.2 : Data plan: INSPIRE compliant data dissemination plan and hand over to CLIPC

UERRA should not built its own data portal, but connect to existing data portals.

- Connection with CLIPC through UERRA ESGF data node
- Connection whit CLIPC through climate4impact data upload
- UERRA wider data dissemination through climate4impact.eu and Climate-ADAPT

Questions for GA:

- Do we want to put effort in wider data dissemination?
- UERRA contact persons for datasets are needed to make the connections work
- How does UERRA want to interact with C3S?

(from Wim Som de Cerff, KNMI)

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### Task 4.2 – User-oriented products (KNMI, SMHI, MF)

HYPE - EURO4M RA evaluation report (D4.6)

HYPE - HARMONIE and MESCAN Europe and MO RA hydrological evaluation report (D4.7 – M45, : *Peter Berg*)

Evaluation report TRIP river discharge (MESCAN/SURFEX) (D4.8 – M45)

Indices based on reanalysis data, including uncertainty information (D4.5 – M45 )



Climate Indicator Bulletin ( )



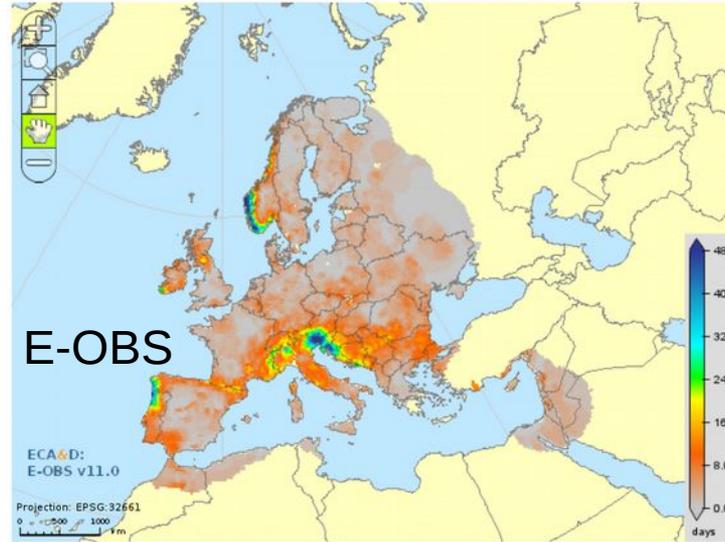
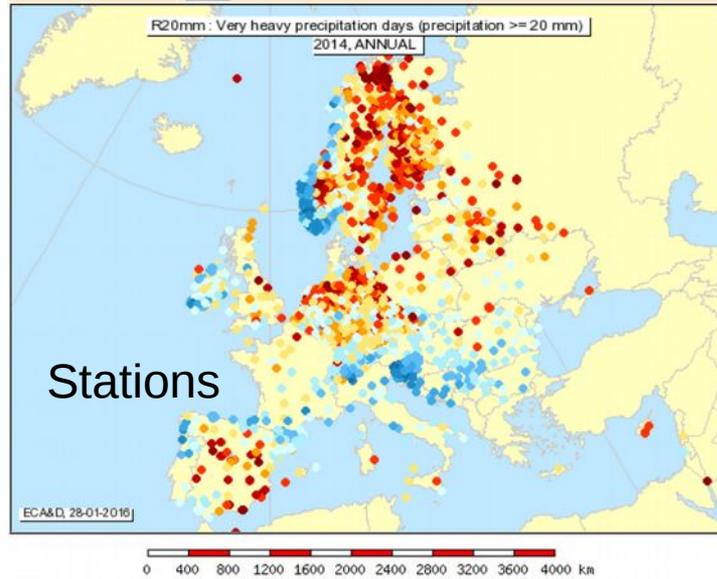
# WP4 Facilitating downstream services

## Task 4.2 – User-oriented products

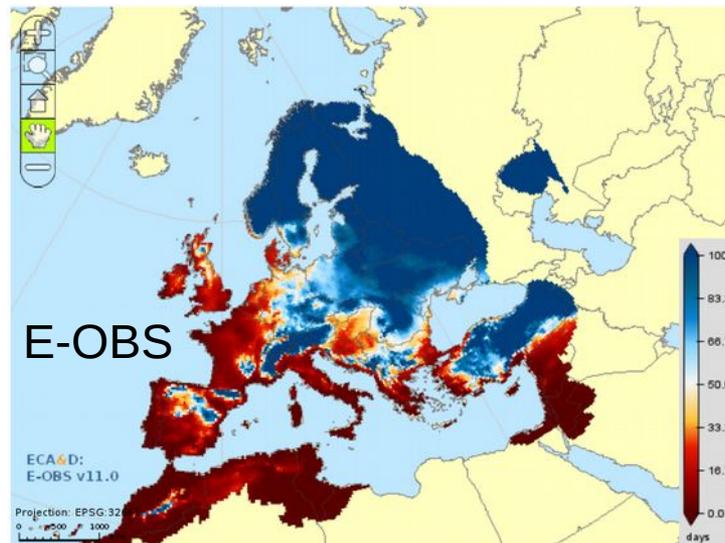
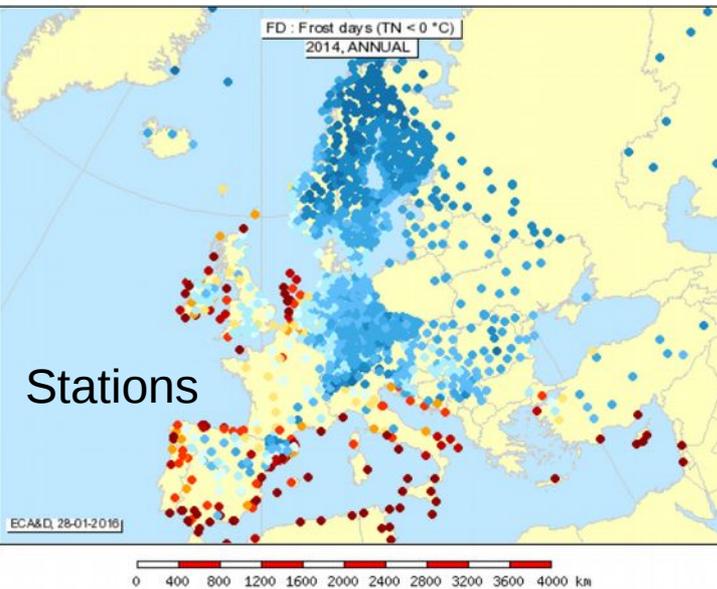
### ★ Climate Indices (Christiana Photiadou, KNMI)



# of days with very heavy precipitation ( $\geq 20\text{mm}$ ) in 2014



# of frost days (TN  $< 0^\circ\text{C}$ ) in 2014



Thank you...