

REA FTP-Server

We provide selected parameters of the ICON-DREAM reanalysis on

https://opendata.dwd.de/climate_environment/REA/.

Please note the [terms of use](#).

For updates, please follow the change log:

https://opendata.dwd.de/climate_environment/REA/Change_log_REA_OD.txt

and/or subscribe to the CDC newsletter:

<http://www.dwd.de/DE/klimaumwelt/cdc/cdc.html>

Disclaimer

The data are initially only preliminary. While the raw data will remain unchanged, the processed data published here may still be adjusted, e.g., changes in the number of model levels or additional parameters. Once the final dataset has been made available, it will be assigned a DOI and will remain unchanged.

Data

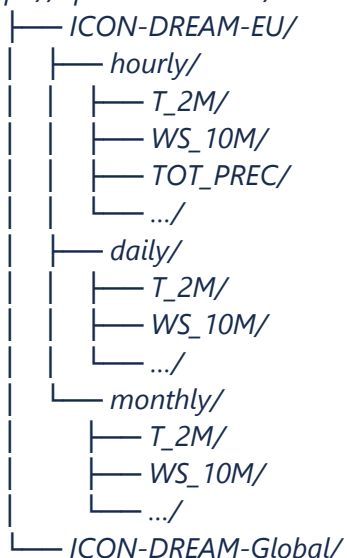
Parameters

Selected two- and three-dimensional parameter fields are provided in hourly, daily, and monthly aggregation. A detailed list of the parameters can be found [here](#).

Over time, the number of parameters will be expanded. The order in which parameters are released depends on the needs of the users. Requests can be sent to cdc.rea@dwd.de.

The data on the FTP server are organized by region, temporal resolution, and parameter. The folder structure is essentially identical for ICON-DREAM-Global and ICON-DREAM-EU. The structure is as follows:

https://opendata.dwd.de/climate_environment/REA/



— hourly/...
— daily/...
— monthly/...

In the final folder you will find the GRIB files, with the data stored on a monthly basis. The parameter, as well as the spatial and temporal resolution, are included in the filename. For example, the filenames for the daily mean 2 m temperature on the global grid are:

ICON-DREAM-Global_201101_T_2M_dayavg.grb
ICON-DREAM-Global_201102_T_2M_dayavg.grb
ICON-DREAM-Global_201103_T_2M_dayavg.grb
...

Temporal and spatial coverage

ICON-DREAM is currently available starting from January 2010. The dataset is updated on a monthly basis, with a delay of approximately two to three months behind the current month. The data are provided on the original ICON grid—once on the global grid (ICON-DREAM-Global) and once for the higher-resolution domain over Europe (ICON-DREAM-EU, see Figure 1):

=> ICON-DREAM-Global (13 km horizontal resolution)
=> ICON-DREAM-EU (6.5 km horizontal resolution)

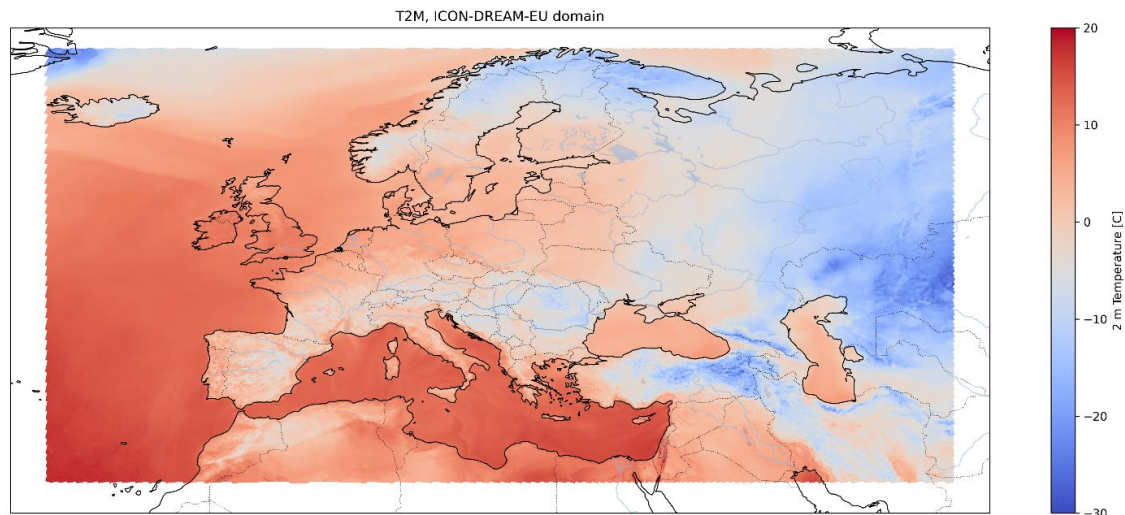


Figure 1: ICON-DREAM-EU domain illustrated with the 2m temperature.

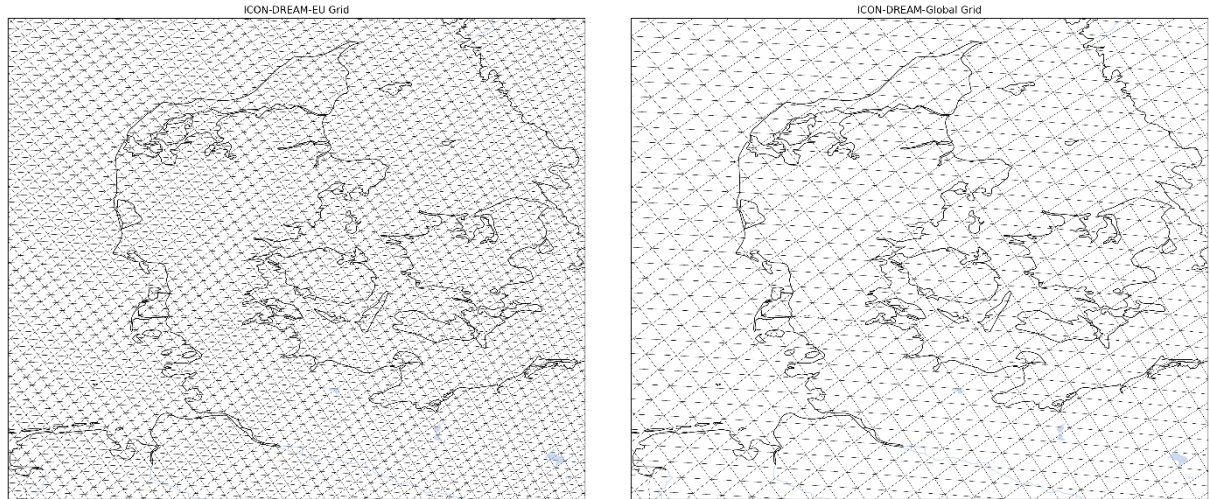


Figure 2: Illustration of the ICON grid for ICON-DREAM-EU (left, 6.5 km horizontal resolution) and ICON-DREAM-Global (right, 13 km) over Denmark and northern Germany.

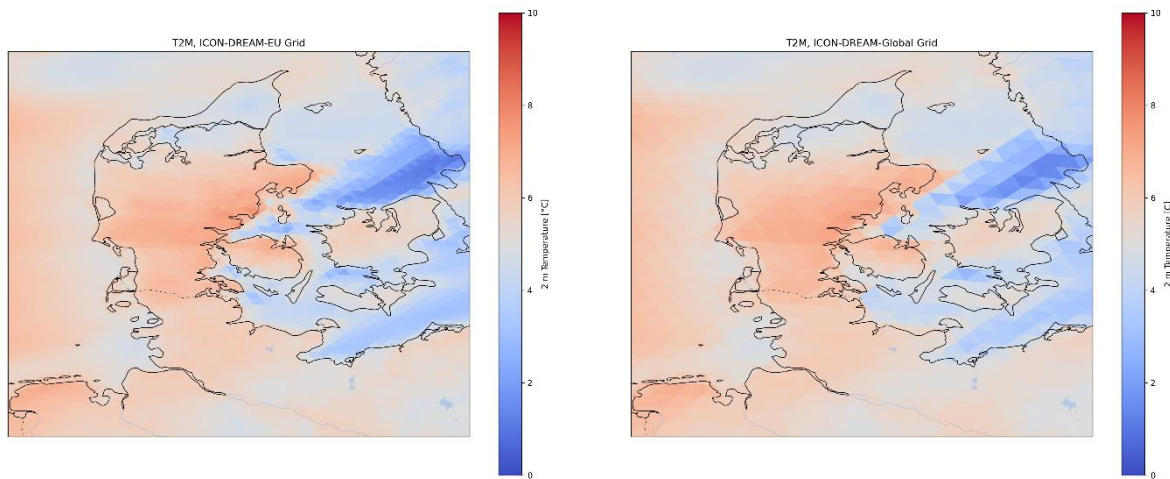


Figure 3: The 2m temperature on 2012/02/23 at 2 UTC (a randomly selected time step) for ICON-DREAM-EU (left) and based on ICON-DREAM-Global (right). The different cell sizes are also reflected in the temperature fields.

Format

The fields are provided in compressed GRIB2 format.

References

Please cite the data as:

Valmassoi, A., J.D. Keller, H. Anlauf, A. Cress, A. Becker, F. Fundel, T. Hanisch, F. Kaspar, Krebber, M. Lange, T. Steinert, S. Wahl, G. Zängl, R. Potthast (2025): ICON-DREAM – ICON Dual resolution Reanalysis for Emulators, Applications and Monitoring. Deutscher Wetterdienst (DWD), Climate Data Center (CDC), DOI: 10.5676/dwd/icon-dream_v1, (Downloaded on DD-MMM-YYYY)

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