

Highlights


- A sub-seasonal hydroclimate forecasting system (HS2S) is developed for Germany providing weekly Soil Moisture Index (SMI) forecast.
- It constitutes an extension of the German drought monitor. HS2S unique features are
  - ✓ Near real-time observation records from 1500+ stations used to generate initial hydrologic conditions.
  - ✓ The possibility to track the evolution of drought events in real-time within the MOSES project ([www.ufz.de/moses](http://www.ufz.de/moses)).


**HS2S forecast** <https://www.ufz.de/moses/index.php?en=47304>


**German Drought Monitor** <https://www.ufz.de/index.php?en=37937>

**MOSES Project website** <https://www.ufz.de/moses/>

**For more information**

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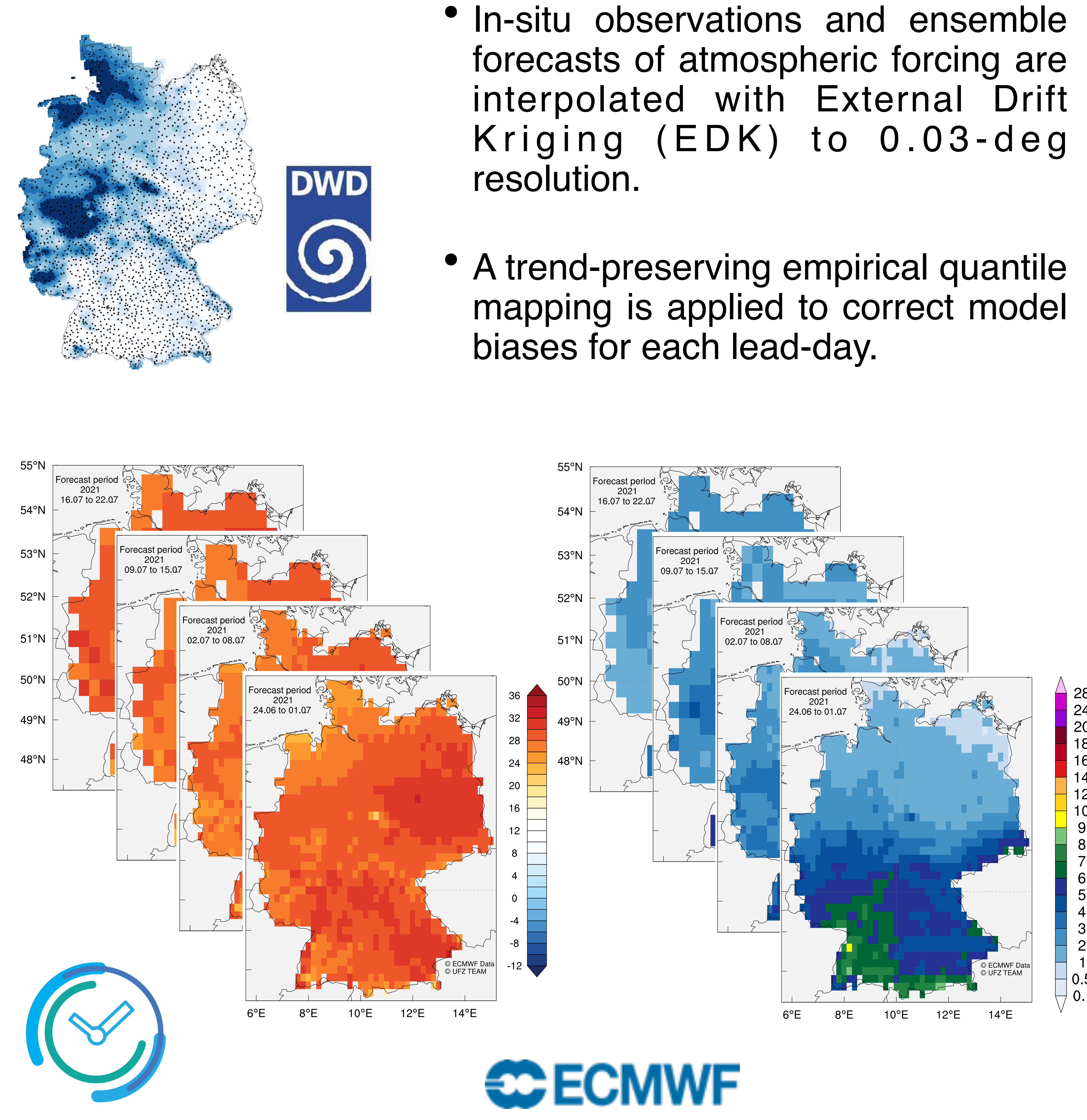
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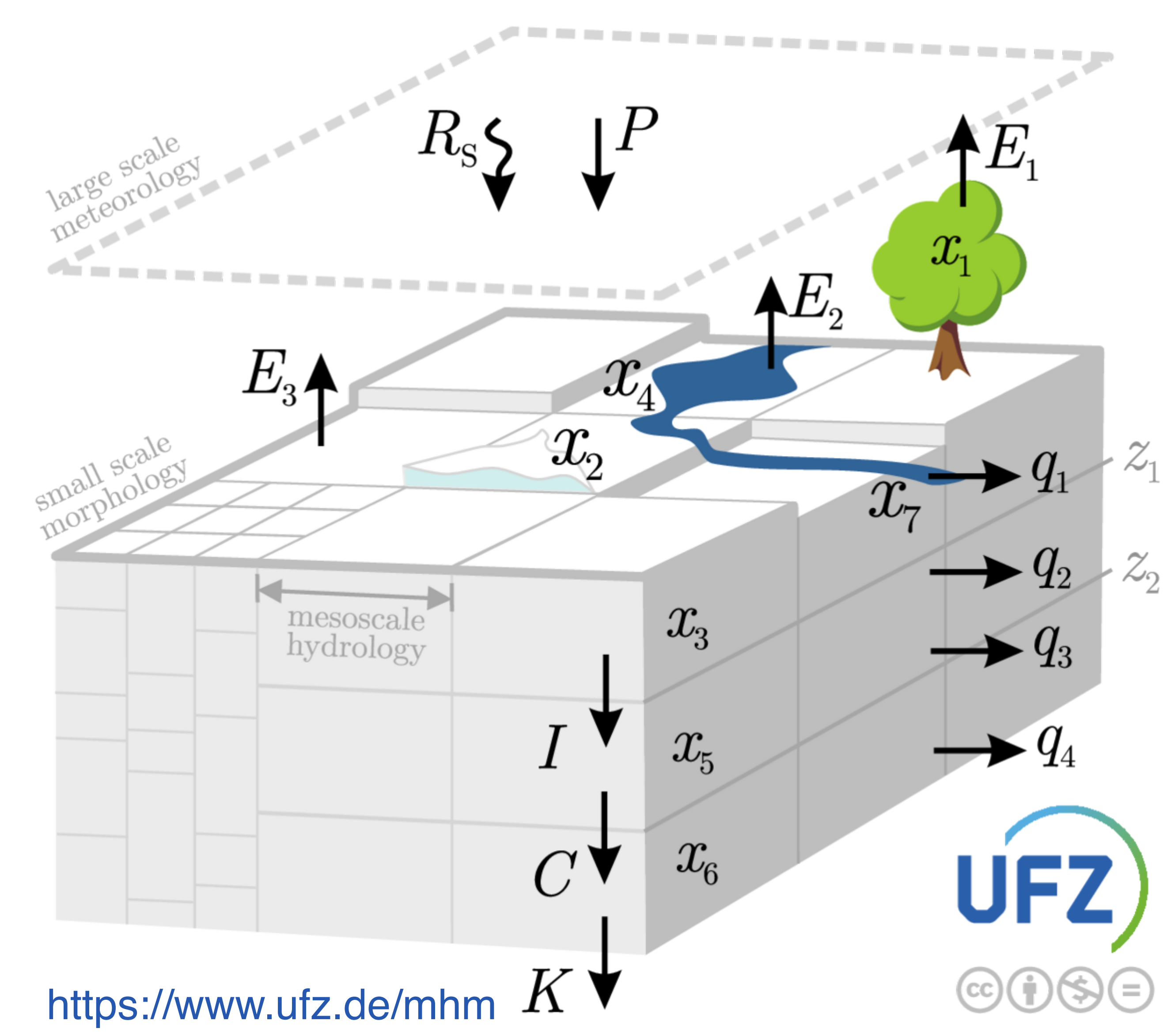


Near Real-time OBS

S2S real-time ensembles



- In-situ observations and ensemble forecasts of atmospheric forcing are interpolated with External Drift Kriging (EDK) to 0.03-deg resolution.
- A trend-preserving empirical quantile mapping is applied to correct model biases for each lead-day.
- Hydrologic initial conditions are generated by forcing mHM with high resolution near-real time observations obtained every day from DWD online portal



- The HS2S takes advantage of the multiscale parameter regionalization (MPR) technique.
- Once ECMWF real-time S2S forecasts are issued every Monday & Thursday, mHM is forced with 51 atmospheric ensemble forecasts.

