Challenges of operationally calibrating EFAS hydrologic forecasts

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With the increasing demand for a higher temporal and spatial hydrologic forecast resolution, the design of operational forecasting systems is rapidly becoming challenging, requiring a multi-disciplinary approach to the design of such systems. Especially for the purpose of calibrating gridded hydrologic forecast models using iterative algorithms at the continental scale, the computational stress on systems is making it difficult to deploy on typically available computer infrastructures. We present the newest EFAS operational calibration tool for calibrating 6-hourly model forecasts on the European domain. Challenges encountered and adopted solutions for using ECMWF’S high-performance computer are presented with an interest in sharing and discussing future-proof high-resolution calibration methodologies.