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Comprehensive risk assessment of July 2021 European flooding including associated uncertainties

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In July 2021, low-pressure system “Bernd” parked itself over central Europe in July 2021 and caused significant flooding in western Germany and neighbouring countries. The devastating flooding led to more than 180 casualties in Germany and caused catastrophic losses by disrupting infrastructure.

As the flood event unfolded, we at Verisk Extreme Event Solutions, re-modelled the event using state-of-the-art flood models by simulating river flows in our hydrological and flood inundation patterns in hydraulic model from observed precipitation fields derived from NASA’s Global Precipitation Measurement (GPM). Using the remodelled hazard and our Industry Exposure Database (IED), we provided a range of insured loss estimates for the insurance and reinsurance market. We will discuss the event with respect to hazard and uncertainties associated with risks, such as demand surge, cost inflation and infrastructure damage.