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AIFS – ECMWF’s Data-Driven Probabilistic Forecasting

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In just two years, the idea of an operational data-driven system for medium-range weather forecasting has been transformed from dream to very real possibility. This has occurred through a series of publications from innovators, which have rapidly improved deterministic forecast skill. Our own evaluation confirms that these forecasts have comparable deterministic skill to NWP models across a range of variables. However, on medium-range timescales probabilistic forecasting, typically achieved through ensembles, is key for providing actionable insights to users. ECMWF is building on top of these recent works to develop a probabilistic forecasting system, AIFS. We will showcase results from our progress towards this system and outline our roadmap to operationalisation.