Seasonal forecasting systems, and related systems for decadal prediction, are crucial in the development of adaptation strategies to climate change. However, despite important achievements in this area in the last ten years, significant levels of skill are only generally found over regions strongly connected with the El Nino-Southern Oscillation. With the aim of improving the skill of regional climate predictions – in tropical and extratropical regions – from intraseasonal to interannual timescales, a new Met Office global seasonal forecasting system (GloSea4) has been developed. This new system has been designed to be flexible and easy to upgrade so it can be fully integrated within the Met Office model development infrastructure. Since its operational implementation in October 2009, the system has been upgraded to include a fully resolved stratosphere, sea-ice assimilation and extended to cover monthly timescales. Our analysis shows a general improvement of skill, including over mid-latitudes as remote forcings of the North Atlantic Oscillation by ENSO and the Quasi-Biennial Oscillation are captured albeit the anomalies are weaker than those found in observations. Global ENSO teleconnections and Madden-Julian Oscillation anomalies are well represented. Hindcast length issues and their implications for seasonal forecasting will also be discussed.