

Changes in wind speeds in Northern Europe until 2100

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Mean and extreme wind speeds in Northern Europe have been projected for the future periods 2046–2065 and 2081–2100.

Mean wind speeds: During the windiest time of the year, the monthly mean wind speeds will start to increase in the Baltic Sea already in 2046–2065. In Finland, increases are largest (5–7%) in November and January by 2081–2100. In November–February 2081–2100, a positive shift of 5–10% is projected to materialize in the Baltic Sea.

Extreme wind speeds: The extreme wind speeds (10-year return level estimates) will increase on average by 2–4% in the southern and eastern parts of Northern Europe, whereas a decrease of 2–6% dominates over the Norwegian Sea. These results agree with results on the future projections of 20-year return level estimates of gust winds that showed that the increase in winds is dominant in a zone stretching from northern parts of France over the Baltic Sea towards northeast (Nikulin et al. (2011)).

Source: Gregow et al., 2011. International Journal of Climatology 32: 1834-1846.

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