

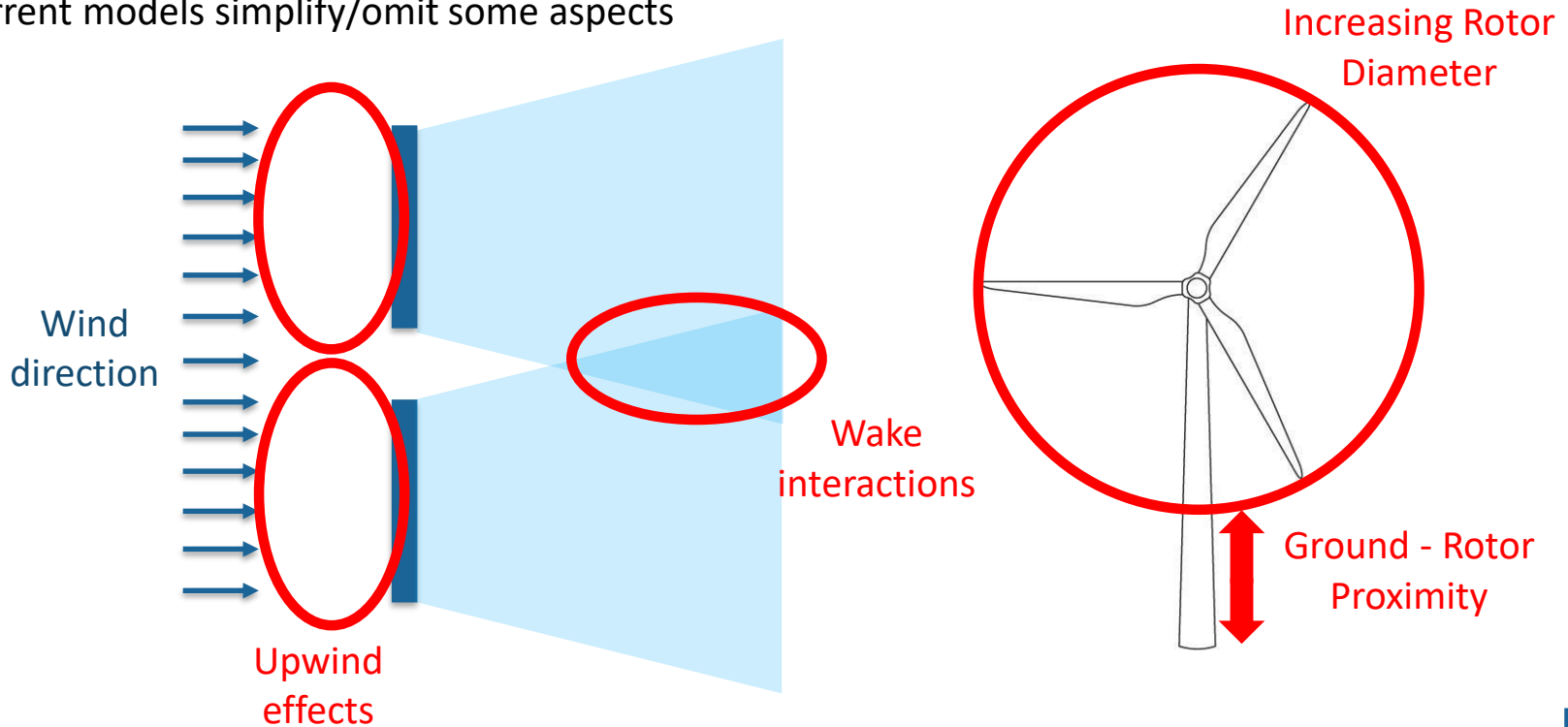


Onshore wake modelling adjustment (Blockage)

Ivar Rush, Winterwind 2020

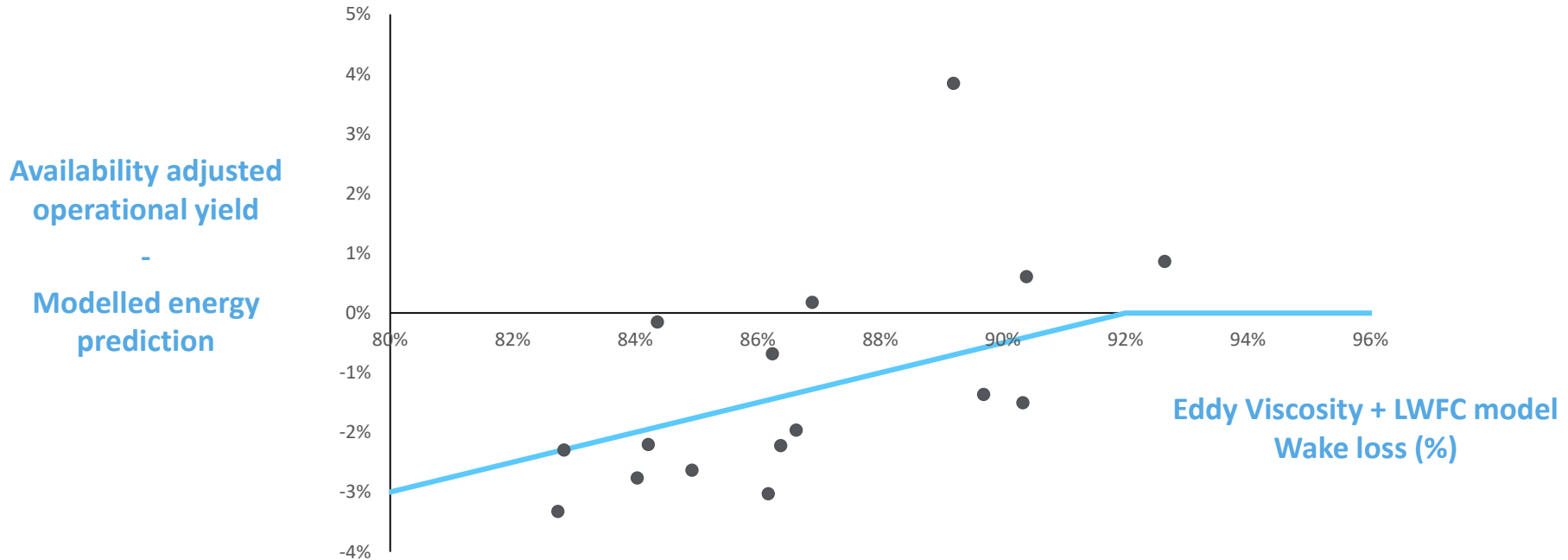
Why post-modelling wake adjustment?

Current models simplify/omit some aspects



K2 Management wake adjustment

End to end validation study containing data from 21 offshore wind farms (report first published 2017)*



"Offshore Yield Prediction – A validation study" – report published May 2017.

"Offshore Wind – A safe investment" – Poster displayed at Offshore Wind Europe, London, June 2017 and Wind Europe, Amsterdam, September 2017

"Offshore Energy Yield Predictions – A validation guide" available from <https://www.k2management.com/services/development-support/analysis>

K2 Management approach to wake adjustment

- Turbine performance: 5% of wakes

+

- Wakes: plus $\frac{1}{3}$ of all wake loss above 8% (offshore)
- Wake : plus $\frac{1}{4}$ of all wake loss above 8% (onshore)

What improvements are coming?

Complete onshore validation

Higher fidelity modelling methods