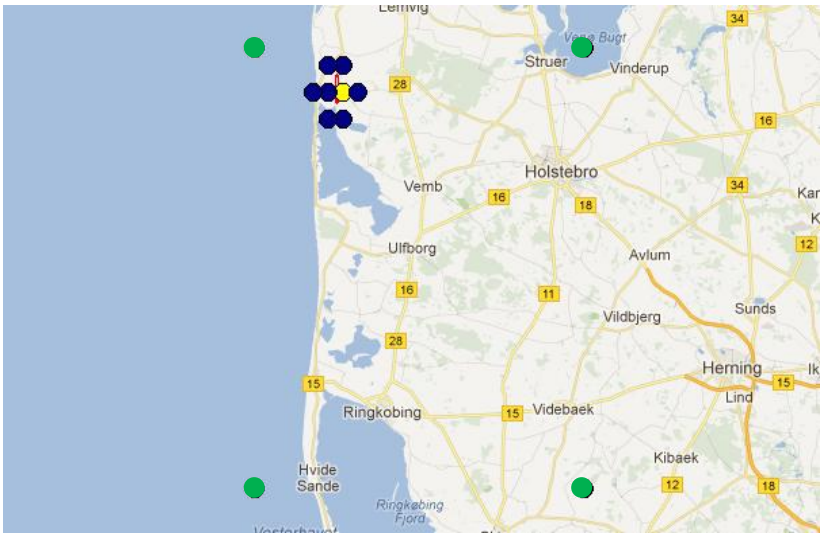
EMD ConWx Mesoscale Data

Introduction

WindPRO 2.9 includes a subscription service to download time series from a high resolution mesoscale data set covering Europe.

The data are modelled in-house in collaboration between EMD and ConWx (http://www.conwx.com), experts in mesoscale modelling.



Blue/yellow dots illustrate nearest EMD ConWx mesoscale grid points, green dots are nearest MERRA grid points for comparison.

EMD ConWx Mesoscale Data Set

The mesoscale model is run at a high spatial resolution of 0.03°x0.03°, approximately 3x3 km with hourly temporal resolution. ERA Interim data from ECMWF (http://www.ecmwf.int) is the global boundary data set.

The data set covers Europe including larger parts of Turkey and Ukraine, excluding the northern extreme of Scandinavia (see domain below to the right). The data set covers more than 20 years. Data are updated monthly with app. 3 months delay defined by ERA Interims availability.

Data access is directly via WindPRO's user-friendly on-line data interface – **Time series are available for instant download, thus no delivery time.**

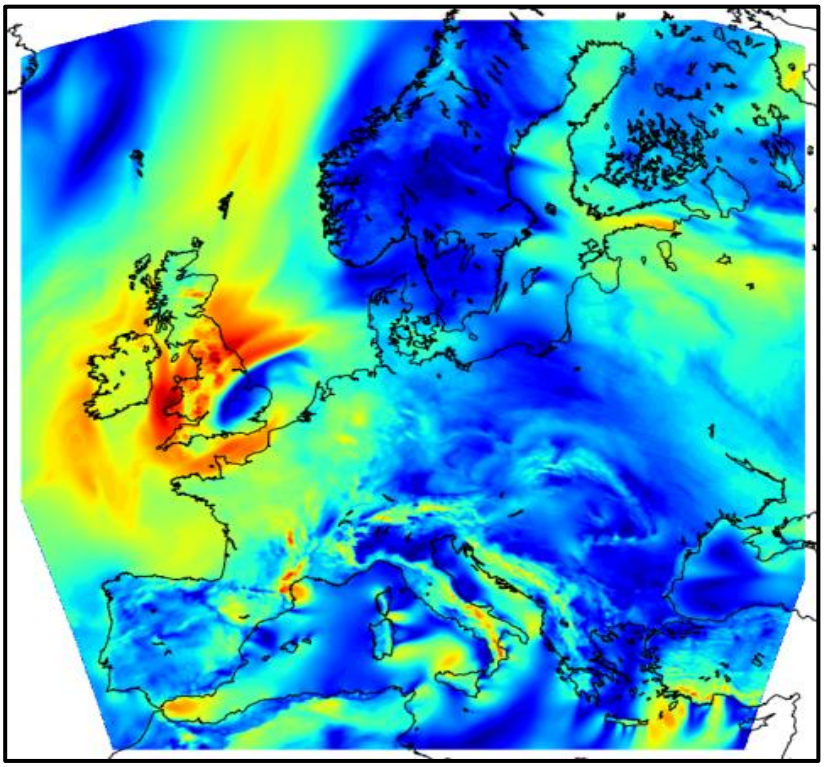


Illustration of the data coverage of the EMD ConWx mesoscale data set. Colors illustrate a snapshot of wind speed variations across Europe for one of the modeled hourly intervals.

Access to the Mesoscale Data Set

To access the EMD ConWx mesoscale data the following are required:

- WindPRO Basis module
- WindPRO MCP module
- Subscription to EMD ConWx mesoscale data set, Europe

Very Competitive Pricing

Access to the EMD ConWx mesoscale data set is offered at an annual price of only **Euro 1,500** for the first subscription and **Euro 450** for each additional subscription within the same company.

Subscribers may download up to **100 time series per calendar month**, if needed. Refresh of already downloaded time series is not counted as a new download.

EMD ConWx Mesoscale Data

Comparison of EMD ConWx mesoscale data at 100m (red) and wind speed measurements at 116m (green) from a site on the Danish West coast. First plot shows 10 days of raw data, second plot is monthly variation, third plot is diurnal variation, and the bottom plot shows distribution/Weibull fits and wind roses. Notice the well resolved and clear diurnal variation in stability (third plot) shown for all available heights (10, 25, 50, 75, 100, 150, and 200m).

Additional parameters included in the mesoscale data set are: temperature (2 and 100m), pressure (surface and sea level), solar radiation, heat flux, relative humidity, cloud cover and several more.