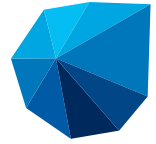# EMD-ConWx Mesoscale Data (Europe)

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

The data are modelled in-house in collaboration between EMD and ConWx, experts in mesoscale modelling.

EMD-ConWx Mesoscale Data Set

The mesoscale model is run at a high spatial resolution of 0.03°x0.03°, approximately
3×3 km, with hourly temporal resolution. ERA Interim data from ECMWF 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 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 – 1.7 million time series are available for instant download, thus no delivery time.
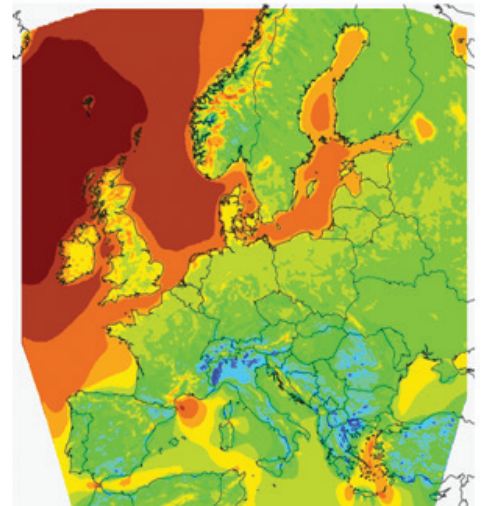
Domain of EMD-ConWx showing mean wind speeds at 75m agl.

Access to the Mesoscale Data Set

To access the EMD-ConWx mesoscale data set, the following are required:

- windPRO BASIS module
- windPRO Meteo or MCP module
- Subscription to EMD-ConWx data set

Very Competitive Pricing

Access to the EMD-ConWx mesoscale data set is offered at the following annual prices:

- Euro 1,500 for the first subscription
- 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.

Validation

The histogram below shows correlation coefficients for more than 100 high quality masts across the domain.
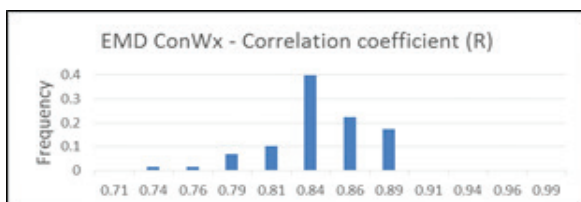
The figures below show a comparison of EMD-ConWx mesoscale data at 100m (red) with measurements at 116m (green) from a site on the Danish West coast.

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. Please 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.