Meteodyn GCS **extracts and analyzes meso-scale climate data** anywhere on land and up to 100 km offshore. It is possible to extract the mesoscale data in a few minutes using an integrated selected grid. 40 years of historical data is available. It includes all wind characteristics as well as air temperature, humidity, and atmospheric pressure. Meteodyn GCS can be used together wind Meteodyn WDA.
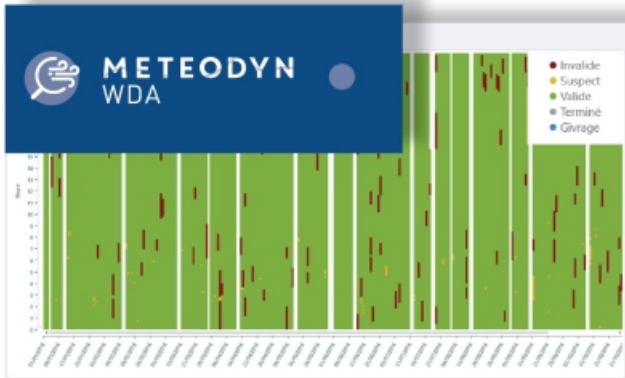
Meteodyn WDA **verifies, completes, and analyzes measured wind data.** The software is versatile as it can process mast, stations, LIDAR and SODAR data. A specific marking system detects errors according to advanced and customizable rules, it then classifies the data into several categories. Afterwards, it is possible to complete and extrapolate the consolidated data. Meteodyn WDA uses multiple filters to analyze all wind characteristics and ensure their compliance with IEC standards.

Meteodyn WT **computes all the wind characteristics and estimates the annual energy production (AEP) for a wind farm**. To model the wind and accurately estimate the wind resource, our wind energy software employs CFD (computational fluid dynamics) technology. The results obtained are accurate, even on complex terrain, thanks to integrated physical forests and atmospheric boundary layer models. Meteodyn WT fully comply with the industry's IEC standards.
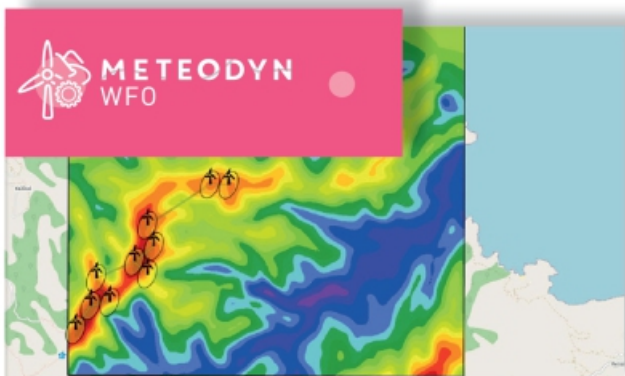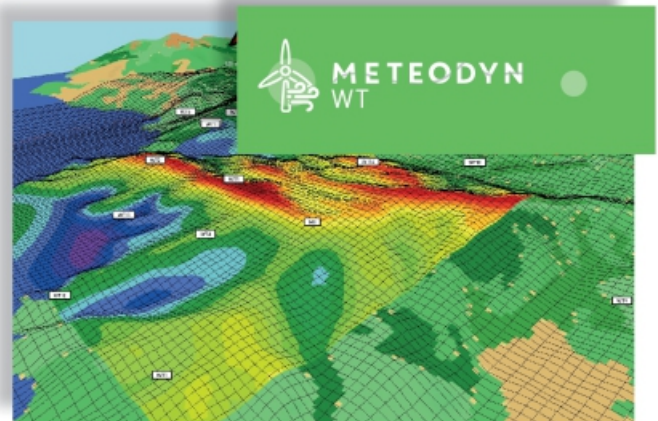
Meteodyn WFO **selects the wind turbine types and optimizes their layout according to several customizable parameters.** The optimization is possible based on a production criterion, a financial criterion or on the «Fitness» criteria, considering both the production, the LCOE and the investment cost. Meteodyn WFO is intended for wind farm design or the repowering of project and optimize their efficiency or cost.

Meteodyn WPA **monitors the performance of wind farms.** The software analyzes the SCADA data of wind turbines then presents the data on graphs or combined indicators. It detects and classifies the operating status of wind turbines and evaluate their real power curve, allowing its comparison with the manufacturer's one, then their analyze over time using the data crossing tool. This makes it possible to detect a loss of energy production, analyze failures of wind turbines and diagnose the underperformance.