

## **René Cattin - WIND FORECASTS AND EXPERIENCES WITH SODAR AND LIDAR IN COMPLEX TERRAIN**

The availability of wind energy is characterized by a high variability in space and time which increases with the complexity of the terrain.

With the increasing number of decentralized and remote production sites in complex terrain, accurate wind forecasts for selected points will become more and more important for reliable grid management, optimised power trading or, especially in South East Europe, extreme wind warnings. Within the SEEWIND project, wind forecasts for three sites have been carried out and validated.

In complex terrain, knowledge about the vertical profile of wind speed is of utmost importance for accurate energy yield predictions. At the same time, the height of mast measurements is usually limited due to missing available space, icing risk or extreme winds. In such cases, remote sensing instruments such as SODAR and LIDAR play an important role. Within the SEEWIND project, extensive measurement campaigns and inter-comparisons have been carried out at three remote sites under harsh climatic conditions.