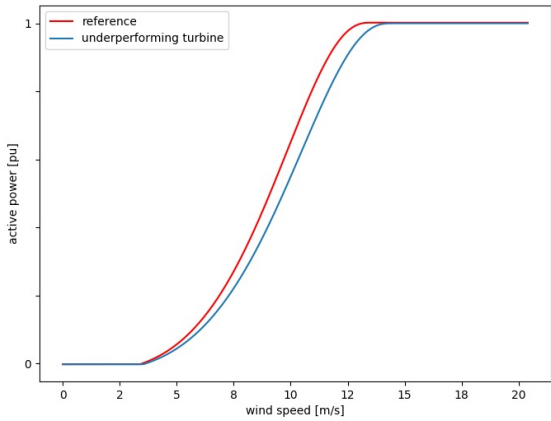
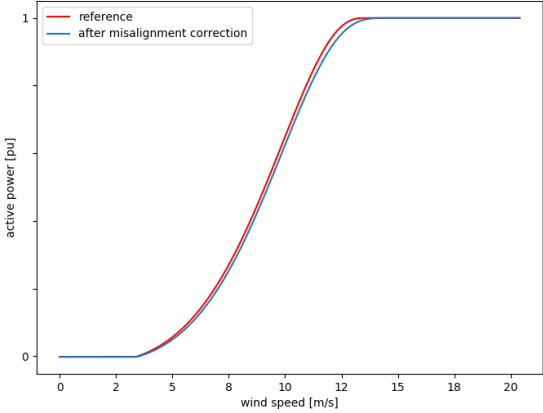


Project	15% production increase on wind turbine
Industry / Asset	2.5MW Wind Turbine
Country	France
Year	2017

The Context	Pictures / Graphs
The wind farm owner was suspecting some of the wind turbines to be underperforming	<p><i>Benchmarking and confirmation of the underperformance</i></p>  <p><i>Performance increase after yaw misalignment correction</i></p> 
Our Solution	
<ol style="list-style-type: none"> <u>Detection of anomaly</u> <ul style="list-style-type: none"> Benchmarking of the wind turbine performance through analysis of historical data and benchmarking Confirmation of the underperformance of one wind turbine <u>Diagnosis</u> <ul style="list-style-type: none"> Identification of the root cause of the underperformance through cross-analysis of multiple performance metrics 24° yaw misalignment discovered <u>Prognosis</u> <p>Increase of annual expected production of ~15 %</p> <u>Intelligence: Performance Optimization</u> <p>Short term action: Correction of the yaw misalignment</p> 	
The Benefits	
<ul style="list-style-type: none"> Increase of revenues Cheaper and quicker than LIDAR Easy monitoring of result and evolution 	
The ROI	
<p>Average possible increase of revenue thanks to production gain: € 60K / year*</p> <p><i>*Result depending of electricity price & wind conditions</i></p>	