

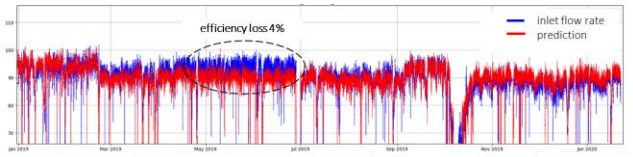
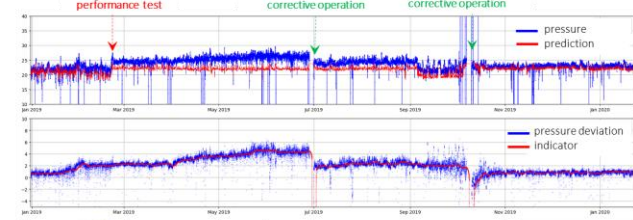
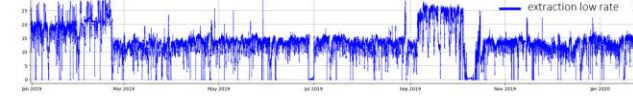
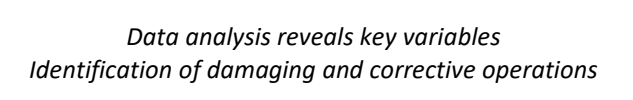


Project	Diagnosis of performance degradation
Industry / Asset	Cogeneration / Steam turbine
Country	France
Year	2019

The Context	Steam Turbines & AI Data Analysis
<ul style="list-style-type: none"> - Client has a suspicion of performance degradation on his steam turbine but cannot assess it correctly due to variable and volatile operating conditions. - Ready-made solutions do not exist 	 <p><i>Turning heat from other process into electrical power</i></p>
<p>P4A Solution</p>	 <p><i>The Steam Turbine is the most critical asset in the plant.</i></p>
<p>1. Analysis of inefficiencies P4A data analytics tools revealed the data related pressure deviation at the extraction point. This deviation causes downtime and leads to efficiency loss up to 4%.</p>	
<p>2. Diagnosis Data correlation analysis allowed the identification of a performance test as the cause of degradation. On the other hand, the analysis shows the specific actions which restore the steam turbine performance.</p>	
<p>3. Actionable Intelligence (*) P4A uses data analytics to increase the insights on steam turbine from data which the operating conditions are variable and volatile. The data analytics points out the corrective actions which allow the process to recover its optimal performance.</p>	
<p>Benefits</p>	 <p><i>Data analysis reveals key variables Identification of damaging and corrective operations</i></p> <p>(*) Actionable intelligence find information that's hidden in a data set which is variable and volatile.</p>
<ul style="list-style-type: none"> - Costly unexpected maintenance avoided (several tens of thousands of euros) - Identification of critical parameters - Scalable Secure Cloud Solution - Easy deployment on other steam Turbines - Environmental & Energy Efficient 	