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| Project | Improved production uptime & safety |
| Industry / Asset | Chemical industry / Mixer |
| Country | Belgium |
| Year | 2011 |

| The Context | Pictures / Graphs |
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| <p>How to avoid returning failures on a critical vinyl mixer causing long downtime and safety risks?</p> | <p>Looking at data with traditional charts and plots, it is not easy to see if patterns have occurred before the failure.</p> |
| <p>Our Solution</p> | |
| <p>1. <u>Detection of anomaly</u> Use of historical data to analyse conditions before/after a failure and identify key factors to establish health indicator. Unhealthy conditions can be detected 4 months before the failure.</p> | |
| <p>2. <u>Diagnosis</u> Root cause based on data and health indicator</p> | |
| <p>3. <u>Prognosis</u> Prediction of remaining life time based on current health indicators</p> | |
| <p>4. <u>Intelligence: Predictive Maintenance</u> Mid-term action: Predictive maintenance tool with alarm thresholds to protect the equipment from upcoming failures</p> | |
| <p>The Benefits</p> | |
| <ul style="list-style-type: none"> - Improved production reliability and safety through predictive maintenance - Automated alarms to protect equipment - Easy implementation - Self learning big data model | <p>Machine learning helps to identify which factors and health indicators are useful to track when the asset starts to deteriorate</p> |