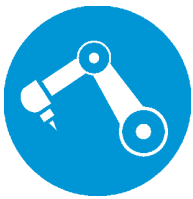




Electronics manufacturer uses predictive analytics to decrease unplanned outage by 38%



EMS Provider

Industry:
Manufacturing

Region:
Central Europe

Agilexi Solution:
Data science

The Business

A European electronics manufacturing services (EMS) provider serves original equipment manufacturers (OEM) to produce consumer electronic products. In a traditionally low-margin and highly competitive industry, the manufacturing efficiency of EMS providers is critical. For this mid-sized EMS provider, competing on operational excellence was central to its overall strategy.

The Challenge

The most significant component of the manufacturer's value chain, a mounting machine (SMT) production facility, was subject to frequent preventative maintenance treatment. Associated machine outage was incurring significant associated opportunity costs.

Solution

- Data pipeline: Ingest, cleaning and consolidation of data from production and business systems.
- Develop predictive model: Statistical modelling in R used to carry out *Survival Analysis*. Breakdown probabilities generated for event sequences and mapped to specific causes within predefined confidence levels.
- Maintenance schedule recommendations: Generate maintenance schedule proposals for plant scheduling.
- Design an intelligent maintenance schedule to focus on critical task
- Develop manufacturing performance dashboard (Tableau) for management summary with *MTBF* and *MTBR* analysis and detailed

Benefits

- Achieved an equivalent monthly reduction of 2 preventative maintenance shifts by adopting just-in-time approach to breakdown prevention.
- Annual revenue increase potential: €5.3M
- Unplanned machine outage decreased by 38%

About Agilexi

At Agilexi we help customers accelerate business value using data. We do this through machine learning, business intelligence and data strategy services.