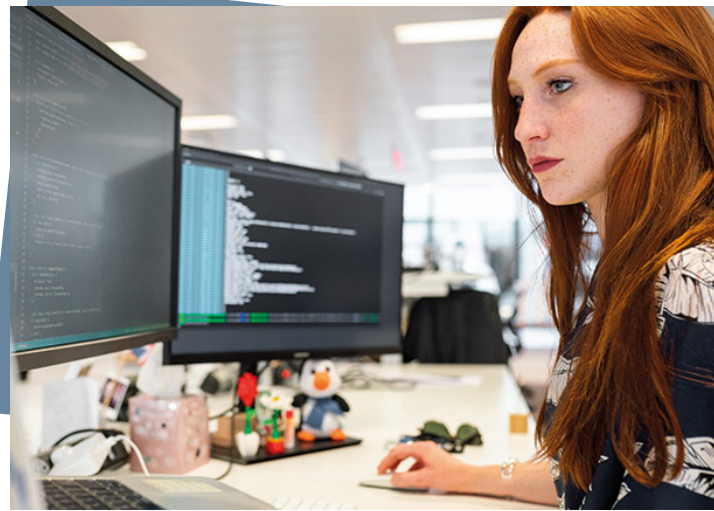# Predictive Maintenance

A ThingWorx Analytics example

What is ThingWorx?

ThingWorx is an IoT platform from PTC that supports your company in developing and managing IoT applications.

With ThingWorx, you can connect assets as well as collect, analyze and monitor data in real time. In addition, ThingWorx offers a variety of functionalities to quickly create IoT applications - without having to develop everything from scratch every time.
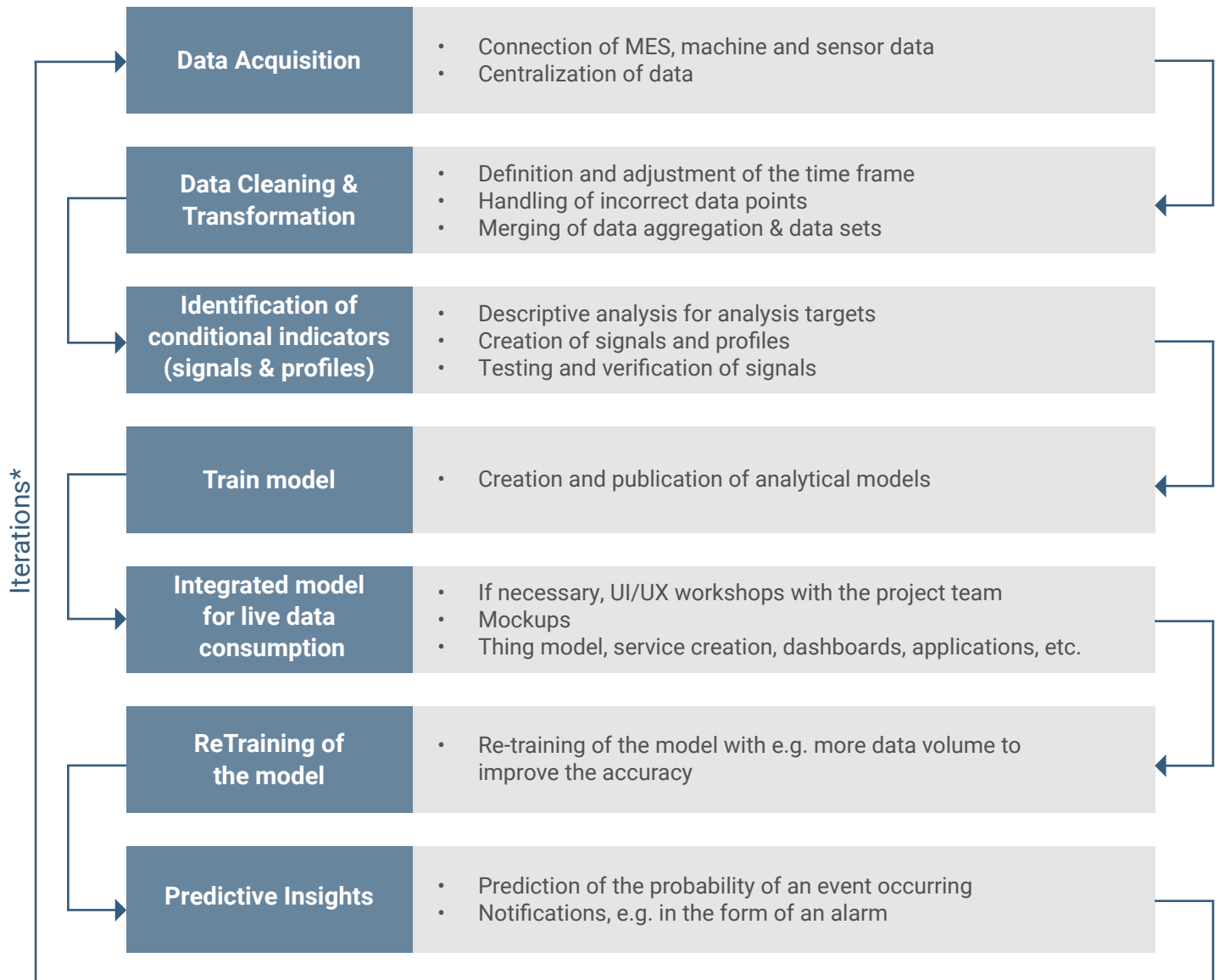

What is ThingWorx Analytics?

ThingWorx Analytics is a module of the ThingWorx platform that provides advanced analytics capabilities for IoT data.

ThingWorx Analytics enables you to analyze collected data in greater depth. This allows you to recognize patterns and ultimately make predictions. All of this is done through the application of machine learning and predictive analytics.

This is how a ThingWorx Analytics project mainly works

Depending on the maturity index level of your production, a ThingWorx Data Analytics project consists of various steps. These can include

Iterations*

Data Acquisition	• Connection of MES, machine and sensor data • Centralization of data
Data Cleaning & Transformation	• Definition and adjustment of the time frame • Handling of incorrect data points • Merging of data aggregation & data sets
Identification of conditional indicators (signals & profiles)	• Descriptive analysis for analysis targets • Creation of signals and profiles • Testing and verification of signals
Train model	• Creation and publication of analytical models
Integrated model for live data consumption	• If necessary, UI/UX workshops with the project team • Mockups • Thing model, service creation, dashboards, applications, etc.
ReTraining of the model	• Re-training of the model with e.g. more data volume to improve the accuracy
Predictive Insights	• Prediction of the probability of an event occurring • Notifications, e.g. in the form of an alarm

*Note: The scope and number of analysis iterations may vary.

Further information

Would you like to find out more about this topic? Then feel free to get in touch with us.
We will gladly answer all your questions.

Get in contact