

Industrial IoT Predictive Maintenance

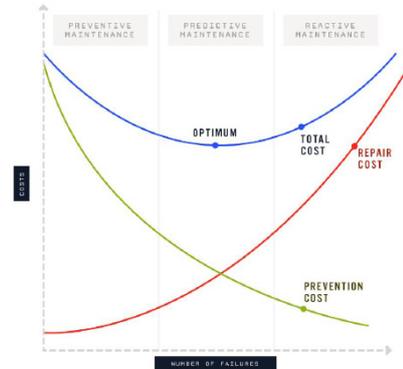


At an estimated \$3.9 trillion dollars, Industry 4.0 / Manufacturing is widely recognised as the industry with the most to gain from the Industrial Internet of Things .

Until now, manufacturers have had to rely on preventative maintenance, which relies heavily on compiling previous statistics and making a best guess at how to prevent problems. The ineffectiveness of preventative maintenance results in reduced equipment life which means increased downtime, resulting in lost revenue and productivity. Predictive maintenance (PdM) uses the real-time, current condition of equipment to determine when to do maintenance. Nobody has to study old data and guess about when service should be performed, with predictive maintenance the machine tells you!

Overall, the Internet of Things will not work without intelligence and machine learning. IoT is not only about collecting the data, but it's also focused on obtaining value from the data after we've acquired it. Attaching sensors to everything only becomes worthwhile when we can predict, control, and make decisions in response to the data.

In an industrial environment, a functioning PdM can predict problems in equipment before they occur—to perform corrective maintenance of the equipment before failure.



Our Nautilus platform, leverages the group's digital security experience and technology to provide a secure data solution in the evolving IoT world. Our IoT platform, empowered by embedded secure element gateways & sensor controllers, using Austriacard's native Smart Card operating system provides banking transaction security in connected IoT devices.

Our IoT platform through the use of machine learning algorithms will automatically and in real-time collect data, make predictions, and react. Depending on the required size and processing of raw data, analytics can be gateway, local server or cloud based. In the case of cloud based Big Data analytics once the devices have been profiled, the gateways can provide alerts in real-time without dependency on always-on cloud connections.

Predictive maintenance and maintenance analytics have been among the major focus points in Industry 4.0 and the Industrial Internet of Things as ABI Research already pointed out in 2014 when it predicted that maintenance analytics were expected to generate \$24.7 Billion in 2019.

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