QualityLine

AI AUTOMATED DATA INTEGRATION & UNIFICATION

How to leverage your data to optimize your manufacturing efficiency and quality using artificial intelligence

> In this e-book: Learn how to leverage Artificial Intelligence solving data integration challenges
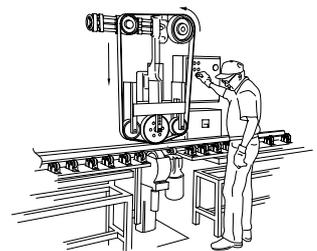
LACK OF END-TO-END PROCESS CONTROL

Endless types of data formats and structures from different locations, types of machines and equipments.

THE CHALLENGES AI HELP SOLVING:

- Data integration and unification from every source and location
- Low quality of products
- High cost of manufacturing
- Inefficiency in manufacturing
- Bad design for manufacturability
- Assets performance & connectivity.

WHY DO WE NEED AI TECHNOLOGY IN MANUFACTURING

For the manufacturing industry, Industry 4.0 has been a game changer.

The data collected during manufacturing offers great potential for improving products, processes, and production efficiency.
Making sense of all the available data, however, is the greatest challenge.

Considering the amount of data stored in endless data structures and formats, it is almost impossible for the human mind to integrate it into practical and actionable information.

As a result, all the collected data is rarely utilized.
This is why artificial intelligence, using computing power, is essential to unify and analyze all of these data sources automatically and make sense of them.

Ultimately, it is the human mind that draws the right conclusions and initiates the improvement process from this automatically processed information.
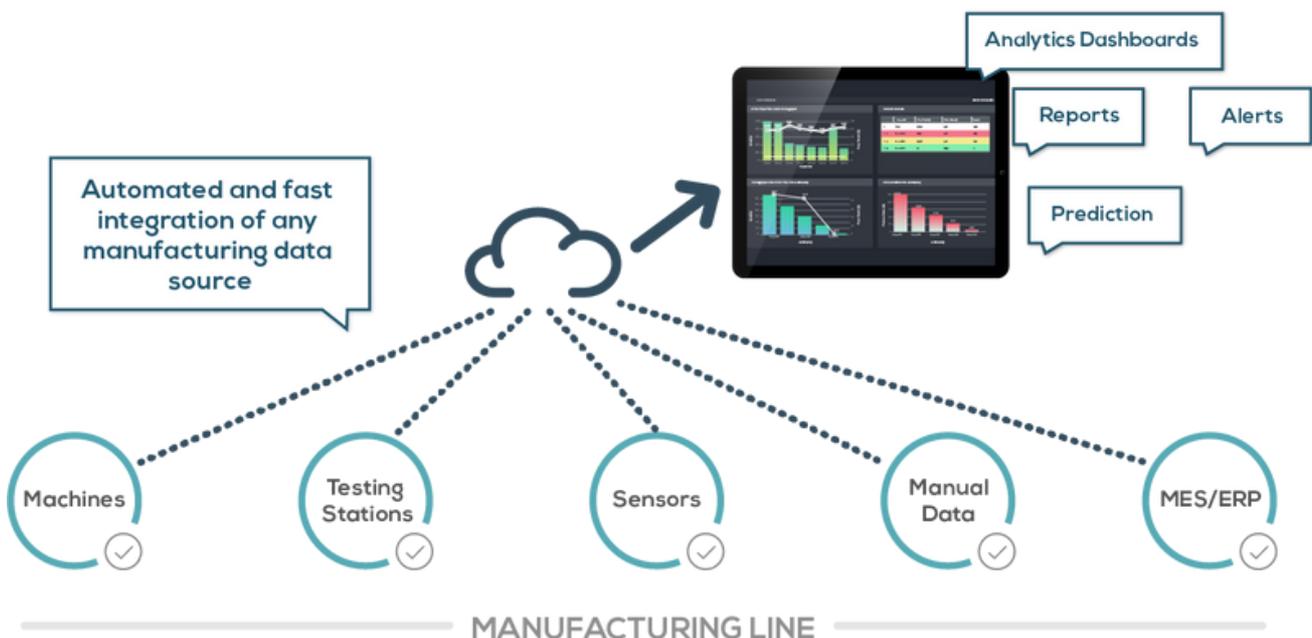
WHAT DOES AI TECHNOLOGY DO?

AI Data Pattern recognition technology scans the data samples of every data source and structure related to a production process and a product:

- Testing data
- Repair data
- Machine data
- Manually & automatically collected data
- Sensor data etc.

The AI technology understands the content, hierarchy, and source of the data.
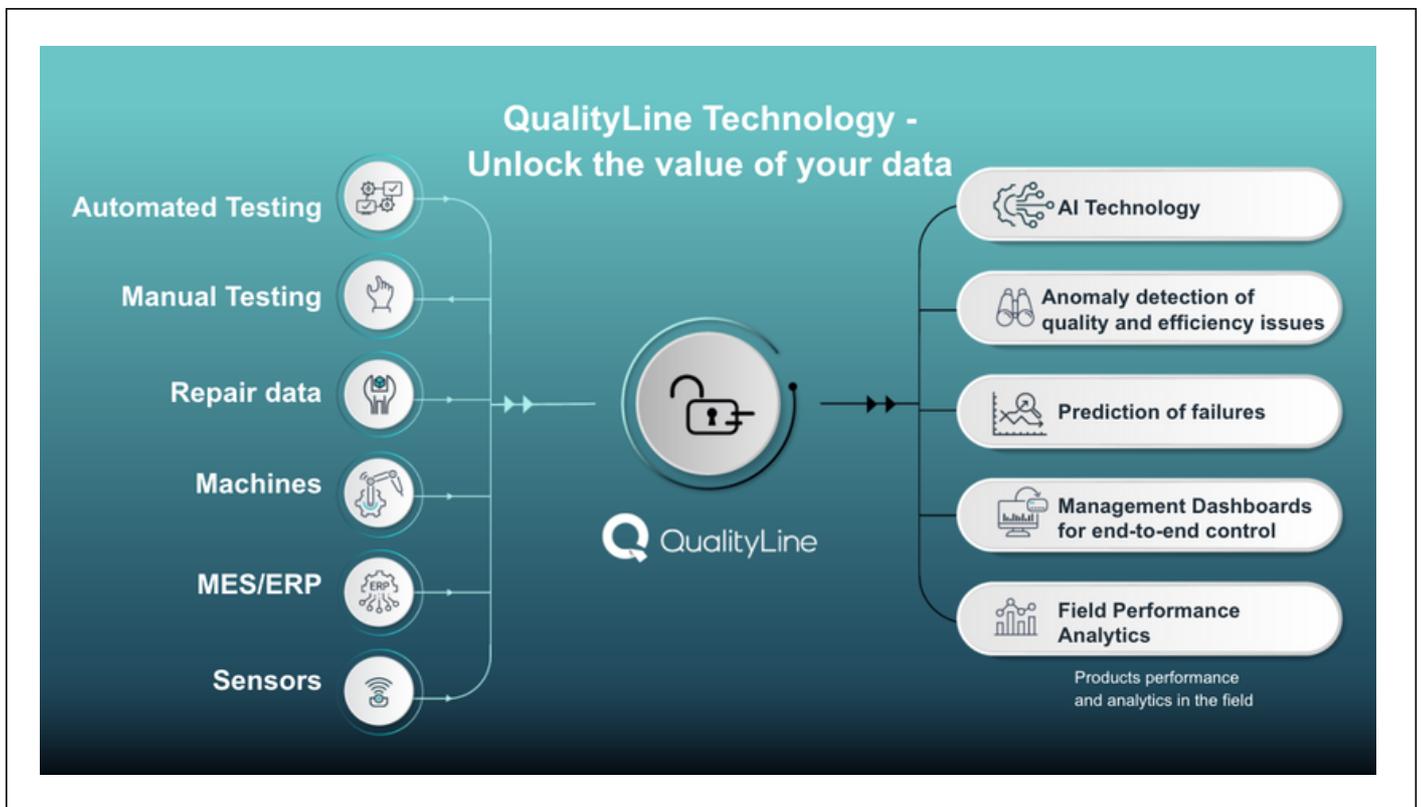The data is mapped and interpreted to create a digital database containing all production, process, and product data for a production network.

Any new information created within the production network is automatically understood by the AI technology using an advanced capture tool that interprets, maps, and writes it into the digital twin database.

Analytics Dashboards

Reports

Alerts

Prediction

Automated and fast integration of any manufacturing data source

Machines

Testing Stations

Sensors

Manual Data

MES/ERP

MANUFACTURING LINE

MAXIMIZING MANUFACTURING EFFICIENCY AND PRODUCT QUALITY

QualityLine's AI manufacturing Analytics and automated data integration maximizes manufacturing efficiency and product quality as it continuously collects the entire manufacturing data into a unified digital twin database. Data sources from multiple global locations are analyzed in real time.

SECURITY

- The digital twin unified data based can also be installed in the customer's cloud.
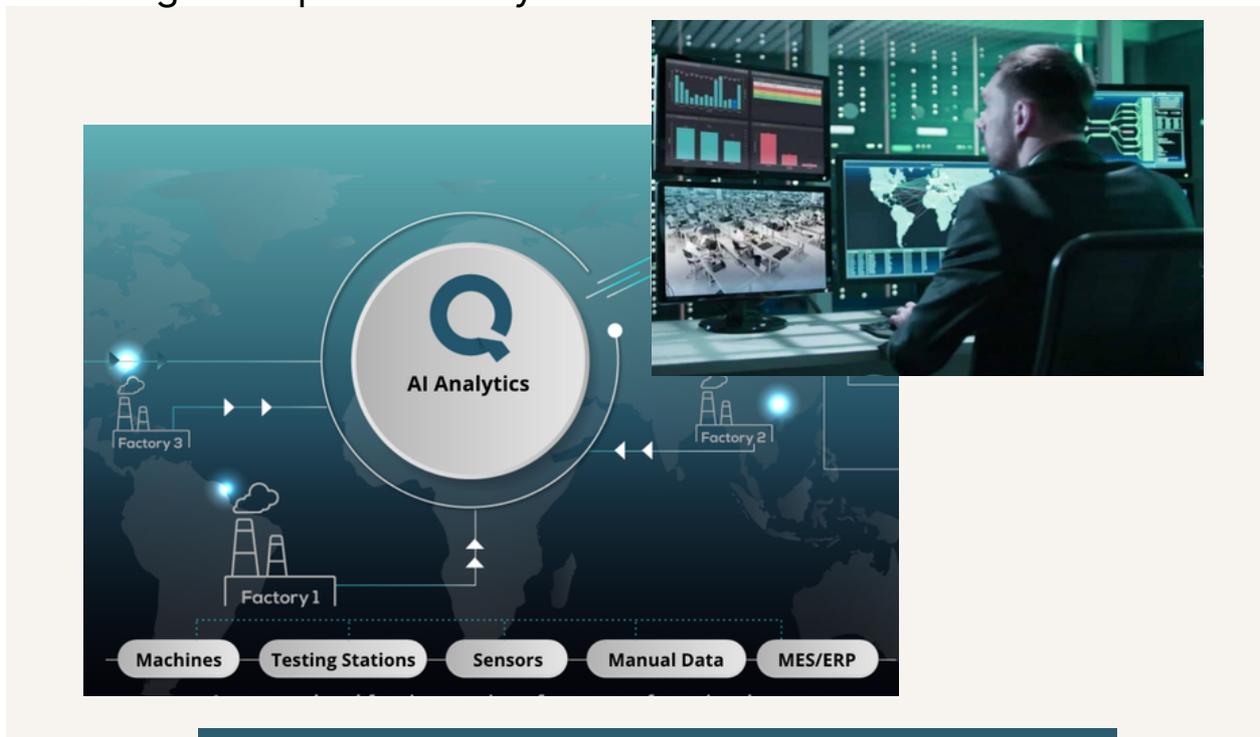
- QualityLine is certified for ISO-27001 (data security)

GLOBAL END-TO-END CONTROL

In order to improve manufacturing process inefficiencies, QualityLine AI analytics predict failures and recommend the right actions.

Customers of QualityLine use **Automated Root Cause Analysis** to effectively overcome quality and yield challenges, thereby increasing their productivity and KPI's.

AI at scale: Fast and scalable data integration

Integration (one time)

01- Define the required data for collection and usage
02- Identify the relevant data in ANY data format
03- AI Data mapping
04- Automatic creation of Data capture tool
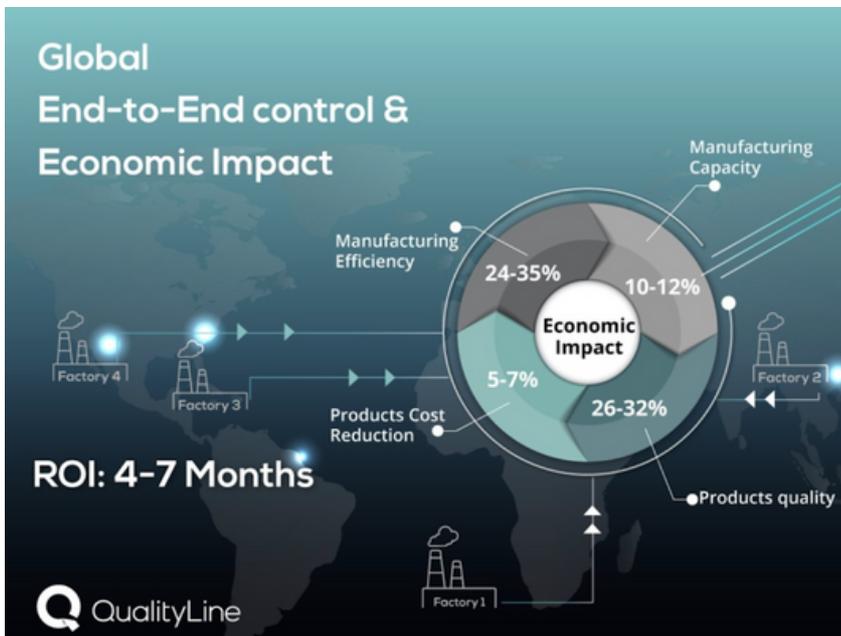05-Data capture tool remotely installed in factory

Continuous usage

01- Data capture tool automatically collects all types of data and converts to unified format
02- Data capture tool automatically encrypts and push data to on premise server or to cloud
03- Automatic data Analysis using QualityLine algorithms
04- Data automatically visualized in interactive analytics dashboards

CAN YOU DEVELOP THIS BY YOURSELF?

It takes years of experience and special automated coding technology to create a solution such as this.

The solution must combine precise knowledge of the production processes, machinery and equipment used in the process, as well as the process itself and workflows. It still takes many years of trial and error to develop software that works precisely and is operational at large scale.

A much faster and especially more economical way would be using the QualityLine technology right away. The system comes practically out of the box and has an ROI of 4-7 months. Actionable results will be accomplished shorter term and payback is immediately.

Continuous usage

Financial value : ROI from 4 to 7 months

360°

QualityLine 360° technology

A complete 360° Manufacturing Analytics solution

QualityLine

Automated integration process with the factory data. **No API is required.**

Harmonization and unification the factory data. **No changes at existing data structures are required.**

AI technoloy to analyze the factory data & **Visualize the BI Analytics for the factory.**

CONTACT QUALITYLINE

In case you have any questions regarding how to use AI analytics for quality and efficiency improvement or to simulate your ROI please contact us at: info@quality-line.com

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Quick and accurate root cause analysis

Enhanced product design for manufacturability

Avoid Downtime

Reduce Recalls Incidents

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