



TRANSITION
TECHNOLOGIES

Unlock the Power of Predictive Quality Analytics

TT PSC has developed a predictive quality analysis solution that helps save time and money by proactively addressing quality problems before they occur.

62.78

66.01

67.63

79.32

62.5

How will Predictive Quality Analytics work for you?

Predictive Quality Analytics is a data-driven approach that uses machine learning and statistical models to predict and prevent quality issues.



Ensure Consistent Quality

Our solution of predictive analytics ensures that your products maintain consistent quality levels, no matter how complex the task or challenging the conditions.



Reduce Costs & Improve Efficiency

Take advantage of our powerful AI-driven analytics to detect and correct any potential defects before they become costly problems, while also streamlining production processes and increasing efficiency.



Catch Problems Before They Occur

Our advanced algorithms can automatically detect small variances in production processes, giving you an early warning of potential problems before they become major issues.



Real-time Data & Insight

Predictive Quality Analytics provides real-time data and insights on production processes, helping you make well-informed decisions quickly and increasing your chances of success.

Before starting a project with predictive quality analytics, there are several prerequisites you should have in place

1. **Clear project objectives:** You need to have a clear understanding of what you want to achieve with predictive quality analytics. This includes defining the key performance indicators (KPIs) you want to track and improve, such as defect rates, customer satisfaction, and end-product quality.
2. **Data sources:** You need to identify the data sources required to develop predictive models. This may include historical quality data, customer feedback, production data, and other relevant data sources.
3. **High-quality historical manufacturing data:** You need to have a robust system for collecting, storing, and managing operational technology (OT) data. Historical data from production processes enriched with quality labels to identify 'perfect batches' are crucial to the success of implementing predictive quality solutions.
4. **Organizational support:** You need to have the support of senior management and stakeholders to ensure the project is aligned with organizational goals and objectives.

From the very beginning to the end of your project, our team of experts will support you at every stage.

By ensuring that these prerequisites are in place before starting a project with predictive quality analytics, you increase the likelihood of success and achieve your desired outcomes.

How the entire process looks



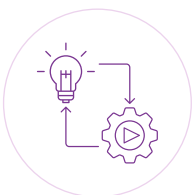
Analysis of process challenges

Together with your domain experts, we identify process pain points and which assets are to be monitored, and potential parameters affecting them or any other process outcome. By analyzing process challenges, we make sure that our focus is on the key elements that have a direct impact on the end product quality.



AI Data Discovery

A broad case study is being held on your data which involves discovering AI potential for a specific problem and assessing the data and its potential for AI modeling and finally defining the project roadmap. This stage can be considered a feasibility study of your existing IT infrastructure, accessing the necessary historical data, and finally - data analysis and validation of whether our solution brings value to your organization.



Project implementation

- **Implement the project roadmap** as defined in the AI discovery phase.
- **Test trained machine learning models** on production lines and validating the model's capability to predict potential quality issues.
- **Deploy the solution after validation** to production and retrain models with new data on fixed time intervals.

Once the solution is deployed in a manufacturing environment, it begins monitoring real-time data in production and provides alerts or notifications when quality issues are detected. This may involve integrating the model with existing systems, such as quality management systems (QMS), manufacturing execution systems (MES) or enterprise resource planning (ERP) systems.

Manufacturing companies using Predictive Quality Analytics make an impact by:

- identify quality issues early
- reduce scrap and rework
- increase productivity
- improve customer satisfaction



A study conducted by McKinsey & Company found that companies that adopt predictive quality analytics can **reduce quality control costs** by up to **50%**, while **improving customer satisfaction** by up to **15%**.

Resource:

<https://www.mckinsey.com/-/media/mckinsey/industries/public%20and%20social%20sector/our%20insights/customer%20experience/creating%20value%20through%20transforming%20customer%20journeys.pdf>

Optimize Your Process Quality with TT PSC

TT PSC provides predictive analytics solution based on AI to help you identify and manage process pain points and analyze which assets' features should be monitored to improve process outcomes.



1 Actionable insights

Our AI-powered analytics engine helps you to get actionable insights from your process data, so that you can identify and address any potential issues before they become a problem.

2 Maximize your performance

Our predictive quality analysis solution helps optimize asset performance by learning what the production process looks like under ideal conditions when the quality of the end product would have been exceptional.

3 Cut down on costs

By detecting any potential quality issues quickly and acting on them before it is too late, TT PSC helps you maximize efficiency and reduce costs associated with low-quality batches, thus allowing limitation of rework, generated scrap and even avoiding costly warranty complaints from your customers.

Experience AI Predictive Quality Analytics Now!

Contact us!

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Technologies PSC**

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