4POINTX

Simplifying Industrial Analytics

IIoT Workbench

Playground for the Industrial Data Scientist

The 4th industrial revolution is primarily driven by data. Thanks to automation, manufacturers now have access to unprecedented volumes of data about their equipment and process. Legacy architectures, however, are falling short in putting this data to full use. The IT/OT gap further adds to the problem. The right platform, on the other hand, can liberate OT data and enable O&M teams to ideate data-driven optimizations for their production lines.

BENEFITS
OF INDUSTRIAL ANALYTICS

Full Visibility
– by combining process, condition & production data

Lower Operational Costs
– by up to 40% through data-driven optimization

Increased Product Quality
– using predictive quality control models

Discover Future Revenue
– growth areas and new business models

ADVANCED CAPABILITIES
OF 4POINTX IIOT WORKBENCH

OT-IT Integration
Automated data pipelines from PLCs, sensors, historians and MES

Custom Dashboards
Using a no-code, drag-and-drop interface

Alerts Engine
Including cross sensor correlation

Asset Metadata
Plant equipment framework for data contextualization

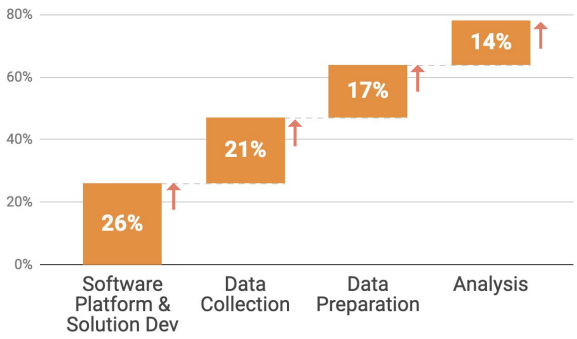
Notebooks
Custom algorithms specific to your operations

Industrial Analytics for Digital Transformation

Industrial Analytics is continuous collection and usage of data generated in industrial operations for optimizing costs, increasing efficiency and eventually gaining a competitive advantage through differentiated products & services.

Companies today acknowledge the importance of industrial analytics but only very few are completely setup.

Major costs in IoT projects



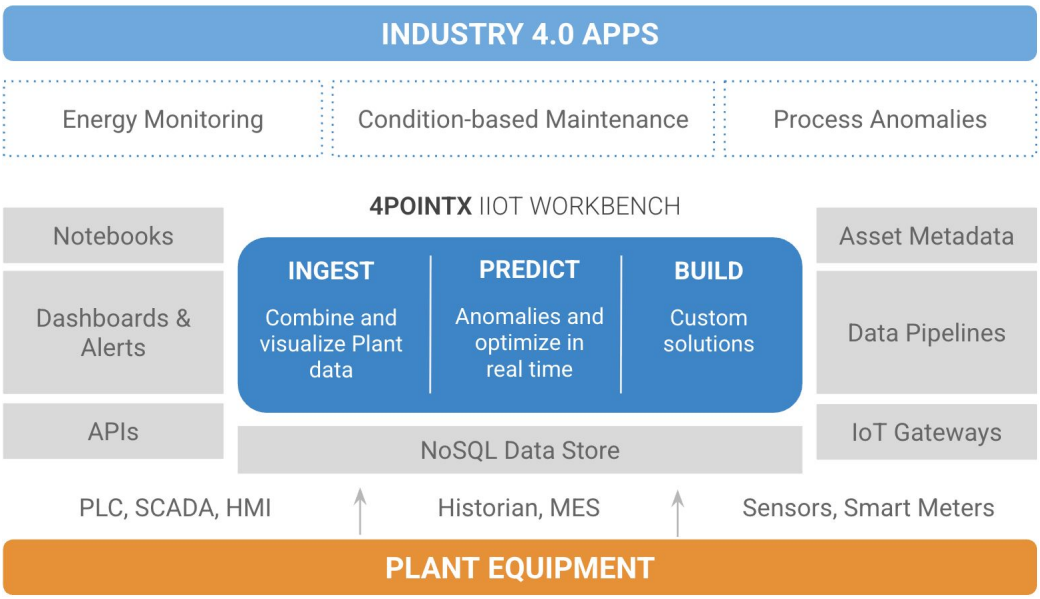
Biggest skill gap is AI followed by IoT/M2M infra

One-third of IoT solutions will be abandoned before deployment due to lack of data management and analytics capabilities adapted for IoT.

- Gartner, How IoT Impacts Data and Analytics, March 7, 2018

4PointX IIoT Workbench for Industrial Analytics

4PointX IIoT Workbench simplifies industrial analytics by bridging the IT/OT gap and enabling manufacturers to implement data-driven solutions to optimize the production lines. The Workbench integrates with SCADA and provides a scalable analytics layer for building custom IIoT solutions.



DIFFERENTIATORS

- **One Platform. Multiple Use Cases:** Features 3 out-of-the-box apps — Energy Monitoring, Condition-based Maintenance, and Process Anomalies.
- **Vendor-agnostic Integrations:** Uses open OT protocols to connect to PLCs, sensors, historians etc.
- **Scalable:** To multiple plants and sites out of a single installation.
- **Non-Proprietary Stack**: Built using enterprise-grade open-source / white-box components. E.g.,
  - IoT Gateway
  - Fault-tolerant Streaming engine
  - Distributed data store
- **Flexible Deployment:**
  - SaaS or Self-Managed
  - On-Premises or Cloud

Apps on 4PointX IIoT Workbench

ENERGY MONITORING

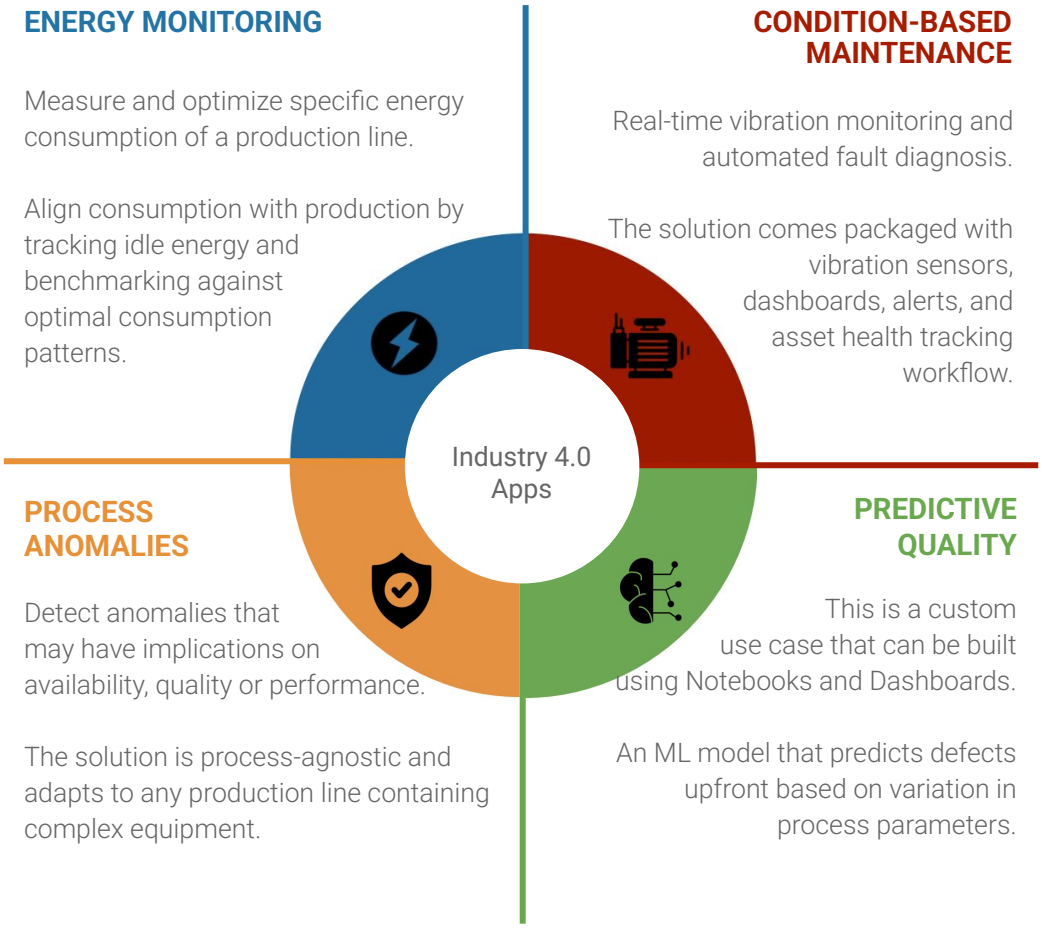
Measure and optimize specific energy consumption of a production line.

Align consumption with production by tracking idle energy and benchmarking against optimal consumption patterns.

CONDITION-BASED MAINTENANCE

Real-time vibration monitoring and automated fault diagnosis.

The solution comes packaged with vibration sensors, dashboards, alerts, and asset health tracking workflow.



PROCESS ANOMALIES

Detect anomalies that may have implications on availability, quality or performance.

The solution is process-agnostic and adapts to any production line containing complex equipment.

PREDICTIVE QUALITY

This is a custom use case that can be built using Notebooks and Dashboards.

An ML model that predicts defects upfront based on variation in process parameters.

Case Studies

A Large Steel Pipes Manufacturer was able to increase equipment availability and reduce welding defects within six months of implementing the 4PointX IIoT Workbench.

Equipment Availability increased by 22%

Defects reduced by 17% per pipe-mile

A Large Steel Wires Manufacturer contacted 4PointX to consolidate their legacy EMS into a unified process-aware integrated EMS.

4PointX EMS guided the operators on ideal consumption for a given product mix. Timely alerts on abnormal consumption helped minimize wastage.

Notebooks & Dashboards on *4PointX IIoT Workbench* helped deliver additional energy insights for continuous improvements.

Energy cost reduced by 7.2 kWh/ton for WRM mill

Energy Demand Variation (plan vs. actual) reduced to 6%

CONTACT US

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