

The fourth industrial revolution – Industry 4.0 – is primarily driven by data and AI. Thanks to IoT and automation, manufacturing companies now have access to unprecedented volumes of data about their assets and processes. Legacy data architectures and analytical tools, however, are falling short in putting this data to full use. The right workbench, on the other hand, can dramatically reduce the time-to-value of Industrial AI and IoT implementations.

BENEFITS OF INDUSTRIAL ANALYTICS

Full Visibility

– into operations by combining process, asset and 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 and new business models

4POINTX IAoT Workbench ADVANCED CAPABILITIES

Data Lake

Automated data pipelines from historians, PLCs and smart sensors

Custom Dashboards

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

Alerts Engine

Including cross sensor event correlation

AI Monitors

For forecasting & anomaly detection

Notebooks

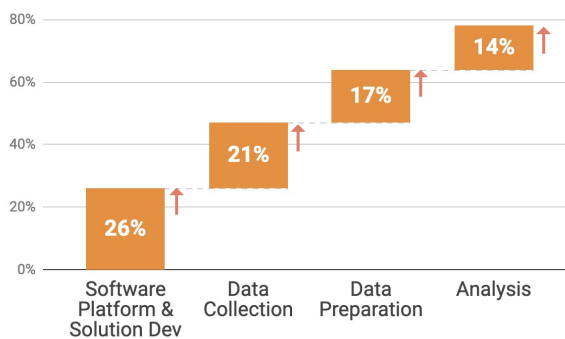
Custom algorithms specific to your operations

Industrial Analytics for Digital Transformation

Industrial Analytics (IA) 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 huge importance of industrial analytics but only very few are completely setup.

Major costs in IoT projects



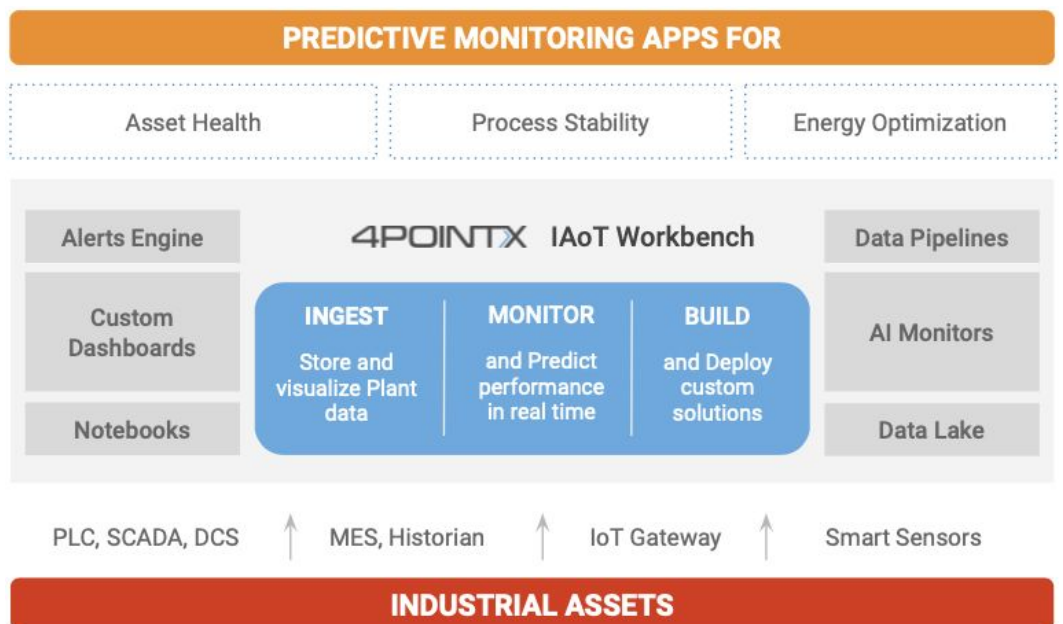
Biggest skill gap is AI followed by IoT/M2M infra

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 IAoT Workbench for Industrial Analytics

4PointX IAoT Workbench simplifies industrial analytics by bringing the best of IT to OT allowing Plant operations managers to build & deploy data-driven solutions at ease. The Platform integrates with existing automation systems and provides a scalable analytics layer with visualisation and predictive capabilities.



Case Studies

A Large Steel Pipes Manufacturer that supplies to oil rigs was able to increase equipment availability and reduce welding defects within six months of rolling out the 4PointX IAoT 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/ process spec. Timely alerts on abnormal consumption helped minimize wastage.

Notebooks & Custom Dashboards on 4PointX IAoT Workbench helped deliver additional custom 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%

4POINTX IAoT WORKBENCH DIFFERENTIATORS

- **One Platform. Multiple Solutions:** Features 3 out-of-the-box I4.0 apps – Energy Monitoring, PdM and Process Monitoring.
- **Multi-vendor Hardware:** Integrates with multiple sensor providers and process historians.
- **Scalability:** To thousands of Assets across multiple Plants.
- **Open-Source Software Stack:** Built using OSS components. Allows 3rd party support & integration.
- **Open-Source IIoT Gateway:** Built using Ruggedboard.com. Runs on Yocto Linux and uses familiar software like Node-Red and Python.
- **Flexible Deployment:** On-premises or Cloud (SaaS).

AI-Aided Apps on the 4PointX IAoT Workbench

PREVENTING UNPLANNED DOWNTIME

4PointX Asset Health app features condition monitoring and FFT-based automated fault diagnostics.

The app also detects process-correlated anomalies in asset condition to predict failure well in advance.

OPTIMIZING ENERGY CONSUMPTION

4PointX EMS app helps reduce wastage and align consumption with production by benchmarking against similar production scenarios in the past.

Prerequisite: Smart Meters deployed

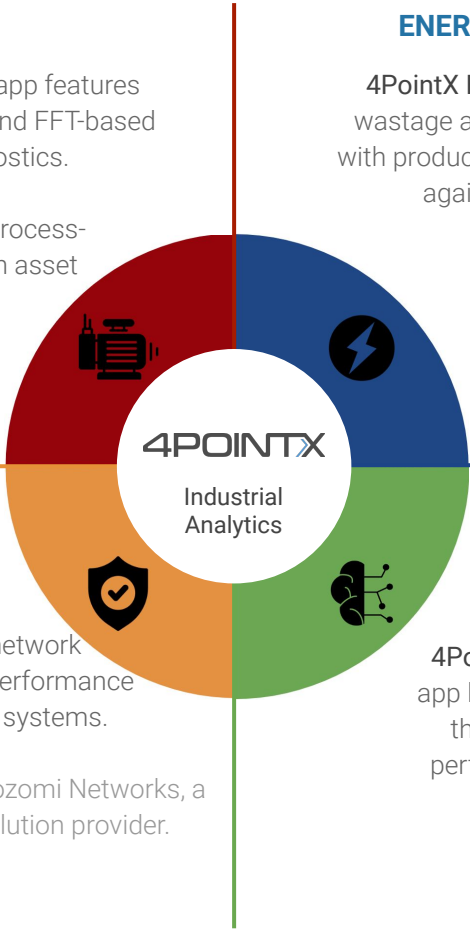
ICS SECURITY* & ADVANCED VISIBILITY

Monitor your ICS/ OT network for threats. Track the performance of HMIs and Level-3 IT systems.

*In partnership with Nozomi Networks, a leading ICS security solution provider.

PRODUCTION PROCESS STABILITY

4PointX Process Stability app helps catch anomalies that may have quality or performance implications



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