



# 4Pointx Platform for Industrial Analytics

Operational Excellence in a Cyber-Physical World

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

## BENEFITS OF INDUSTRIAL ANALYTICS

### Full Visibility into Operations

– by combining process, asset and business 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 PLATFORM ADVANCED CAPABILITIES

**Self-service Machine Learning** for anomaly detection and forecasting

**Big Data stream analytics engine** with hot and warm storage

**Self-service reporting** for custom dashboards and interactive maps

**AI Workbench** for custom algorithms and ML solutions

**Secure sharing** of data with other applications

## Industrial Analytics for Business 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.

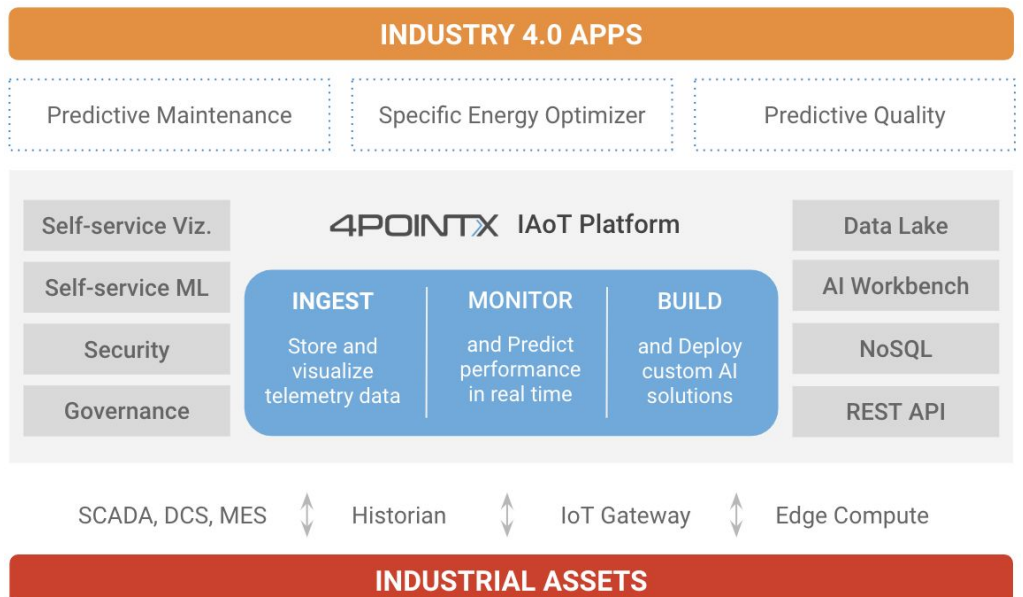
- Major costs in IoT projects are incurred at data collection (21%), data preparation (17%), and analysis (14%) phases. The costliest individual item, however, is related to software platform and solution development (26%).
- The biggest skill gap is currently in Data Science. Another significant deficiency is around IoT/M2M infrastructure.

**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 Platform for Industrial Analytics

The 4Pointx Platform converges the three crucial technologies - IoT, Big Data and AI - into a unified architecture that enables collection, storage and analysis of industrial operations data at scale. A DIY approach, on the other hand, requires high CapEx, OpEx and can take 2 years to production.



## 4POINTX PLATFORM DIFFERENTIATORS

- Flexible Deployment:** The 4Pointx Platform can be deployed on premises or subscribed as SAAS. It can also integrate with your existing data lake on Azure, GCP and AWS.
- GDPR Compliant:** The 4Pointx Platform features data encryption, audit logging and enterprise-grade security and governance with role-based access control down to the row and field level.
- Enterprise Ready:** The 4Pointx Platform supports single sign-on (SSO) and multi-tenancy for deploying across multiple business units. It is designed for DR and HA through cross- and intra- cluster replication.
- Developer Friendly:** The 4Pointx Platform uses standard RESTful APIs and JSON, and supports many languages such as Java, Python, .NET, SQL, and PHP for easy integration with other apps.

## 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 Industrial Analytics Platform.

**Equipment Availability** increased by 22%

**Defects** reduced by 17% per pipe-mile

## Industry 4.0 Solutions on the 4Pointx Platform

### PREVENTING UNPLANNED DOWNTIME

4Pointx Predictive Maintenance solution uses advanced anomaly detection algorithms to predict equipment failure well in advance.

Legacy statistics- and physics-based models don't work here as there are very few historical failures to compare.

### OPTIMIZING SPECIFIC ENERGY CONSUMPTION

4Pointx Specific Energy Optimizer solution helps reduce wastage, align production output with energy consumed, and optimize electrical loads without impacting process.

Prerequisite: Smart Meters deployed

**A Global Tier-1 Telecommunications Network Provider** was able to improve performance by predicting and averting frequent failure of their network equipment, and increase capacity utilization by predicting future capacity.

**Packet Drop** reduced by 52%

**Avg Utilization** increased from 71 to 79%

### REDUCING PRODUCT DEFECTS

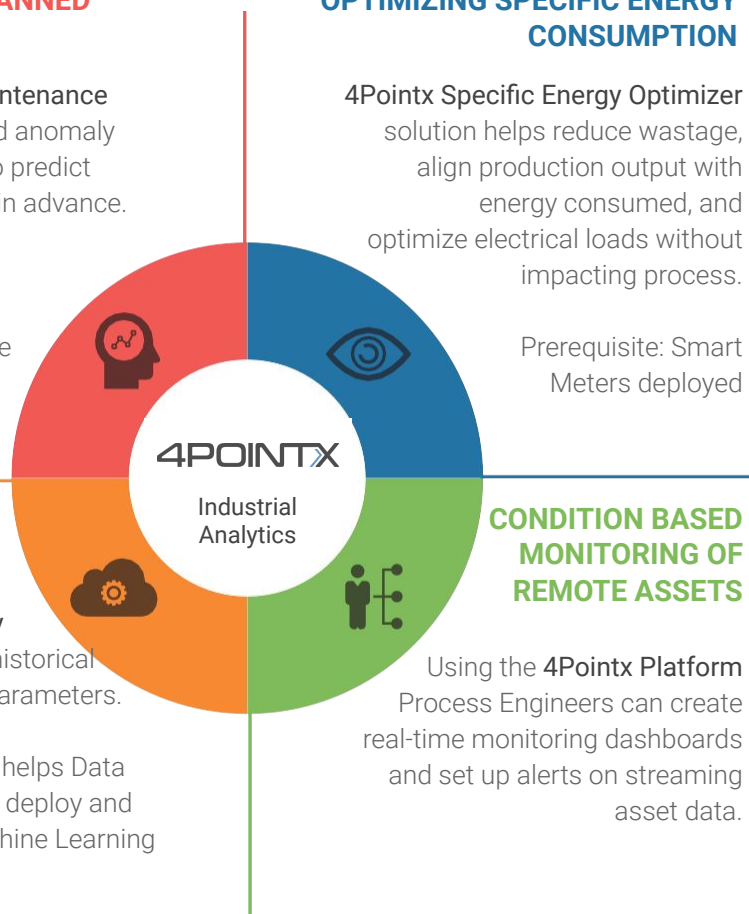
Build Predictive Quality models that correlate historical defects with process parameters.

4Pointx AI Workbench helps Data Scientists rapidly build, deploy and automate custom Machine Learning pipelines.

### CONDITION BASED MONITORING OF REMOTE ASSETS

Using the 4Pointx Platform Process Engineers can create real-time monitoring dashboards and set up alerts on streaming asset data.

**A Large Solar Plant** setup was able to improve the Performance Ratio and forecast production output within three months of introducing the 4Pointx Industrial Analytics Platform.



## CONTACT US

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