DATA+AI SUMMIT BY databricks

Unlocking Industrial AI: Coca-Cola, Databricks, and Data Foundation

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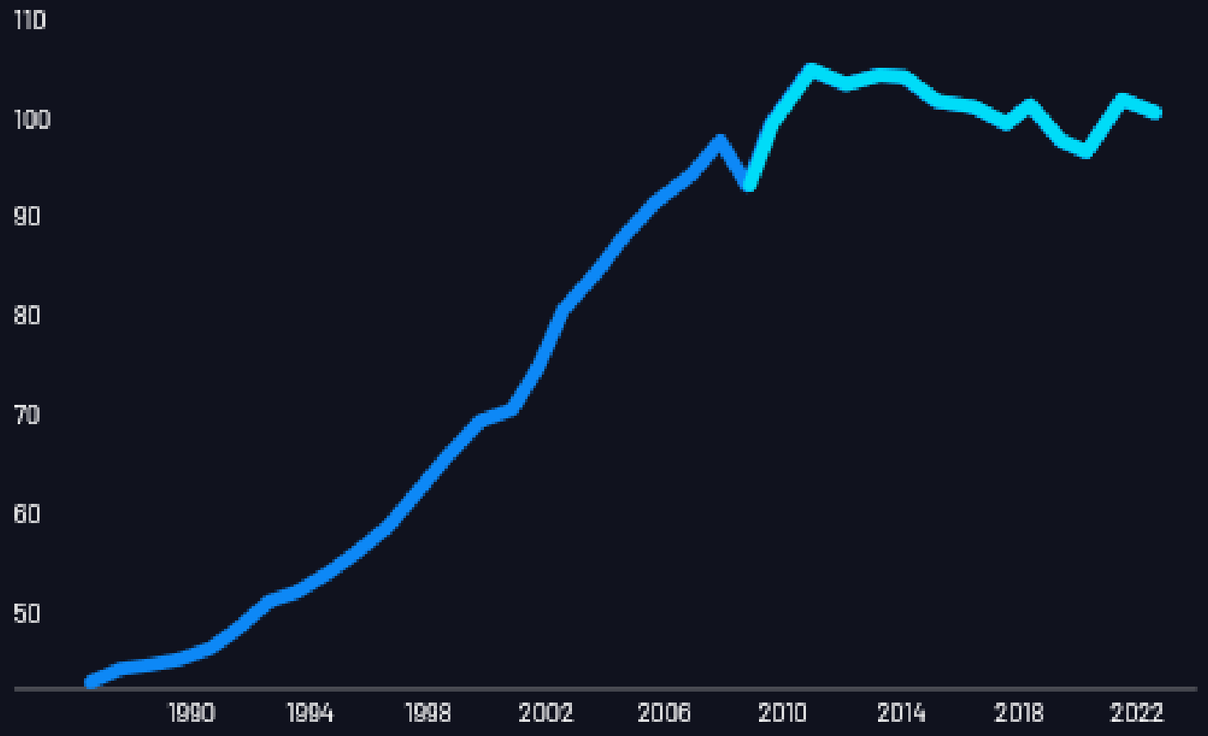
Solving for Productivity Plateau: Investment in Smart Factory and Industrial AI is increasing

Manufacturing Productivity Has Stalled

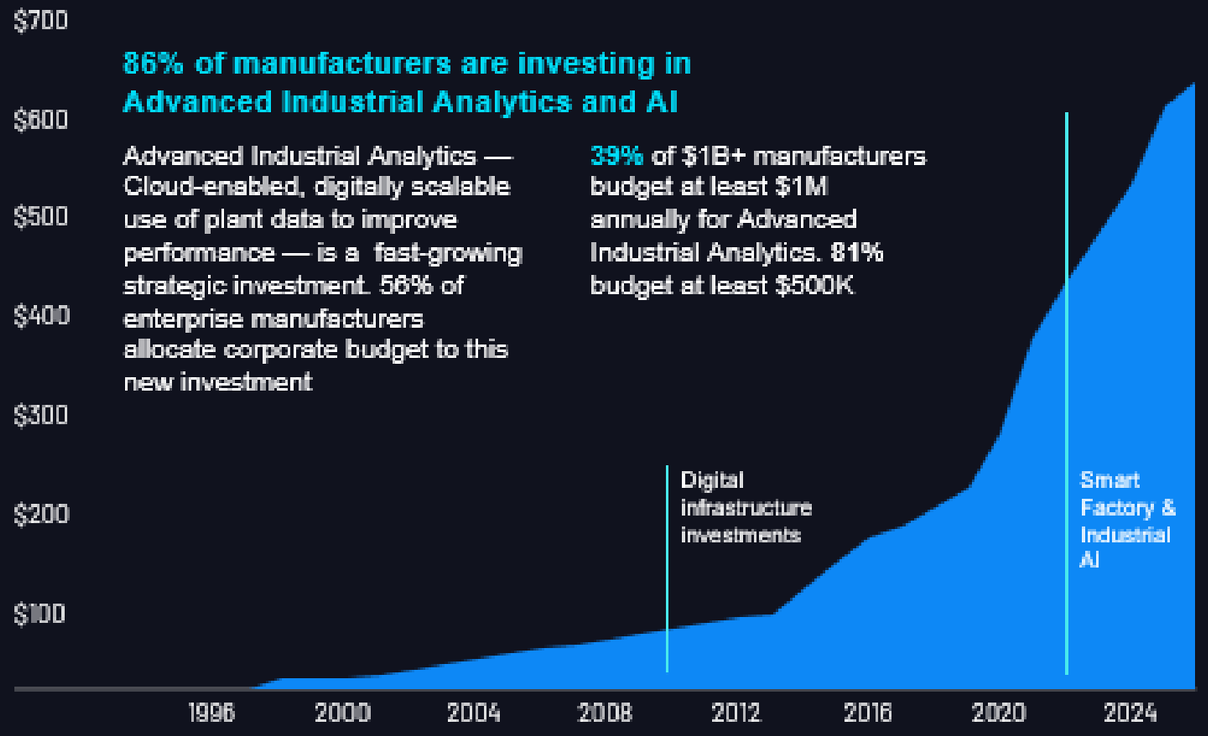
Output Per Hour for All Employed Persons in the Manufacturing Sector



Source: U.S. Bureau of Labor Statistics via LNS Research

To Break Through the Plateau, Manufacturers Are Accelerating Investment in Smart Factory and Industrial AI

Manufacturing Investment in Digital Transformation ($B)



Sources: IDC, LNS Research

The unlock is data, specifically plant floor data

Though rich in digital data, plant floors remain islands: cut off from enterprise IT and the last 30 years of digital evolution. Consequently, plant data has not been usable — less than 1% is analyzed — and until now, data-driven operations have not been feasible.

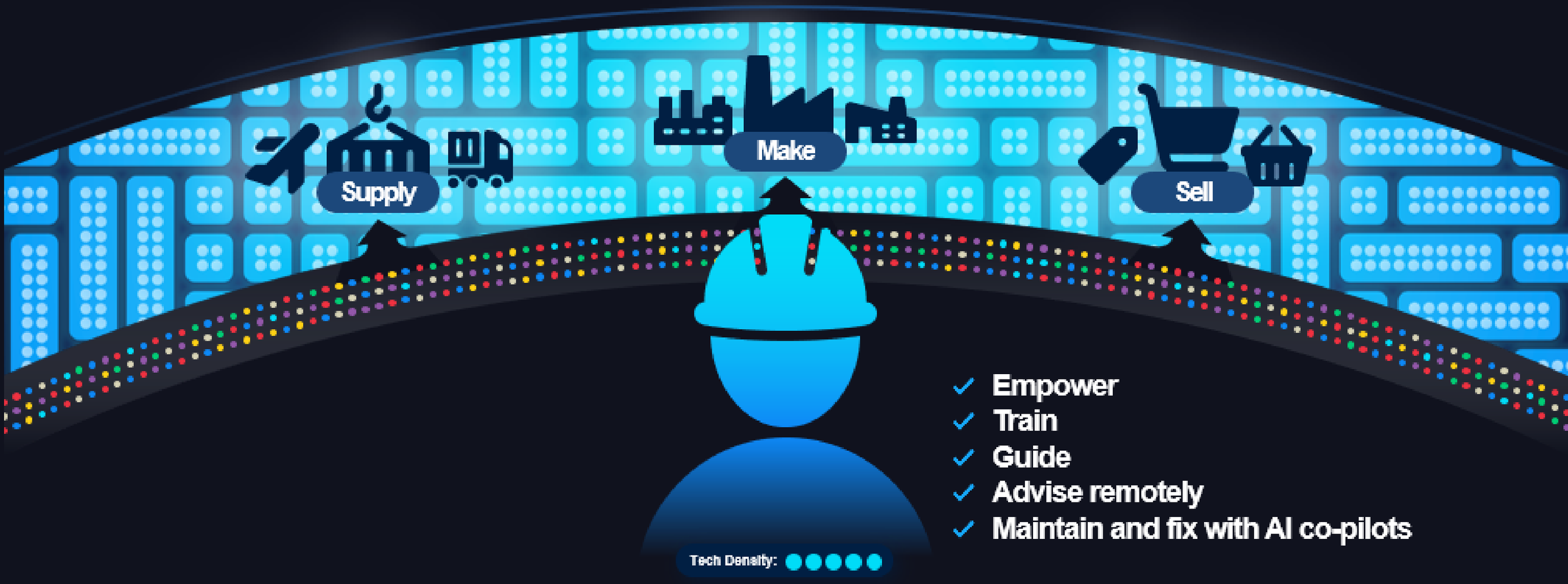
1. For Factories, Insight Must Be Real Time	2. Data Heterogeneity Is Extreme	3. Asset and Process Heterogeneity Are Also Extreme	4. The Data Environment Constantly Shifts	5. No One Even Knows What the Data Is
Stream processing that can accommodate time series and transactional data, as well as late, missing, out of order data.	**Data First architecture:** Data is at the core. Comprehensively transform data early in the architecture and into standardized schemas	Build a manufacturing ontology of **Configurable Digital Twins**. Build up the twins with standardized schemas. In this domain, configurable twins include **Assets**, **Lines**, **Systems**, **Parts**	Place data transformation into a software platform that **scales**, **provides pipeline management infrastructure**, and **enables fast changes** (e.g., "metaconfiguration") to accommodate new data	**AI-enabled data labeling** developed with Nvidia and Microsoft

Data First Architecture

Among industrial data, plant floor data is the most complex yet most valuable once structured

Firms can achieve breakthroughs by joining standardized plant information with other data sources

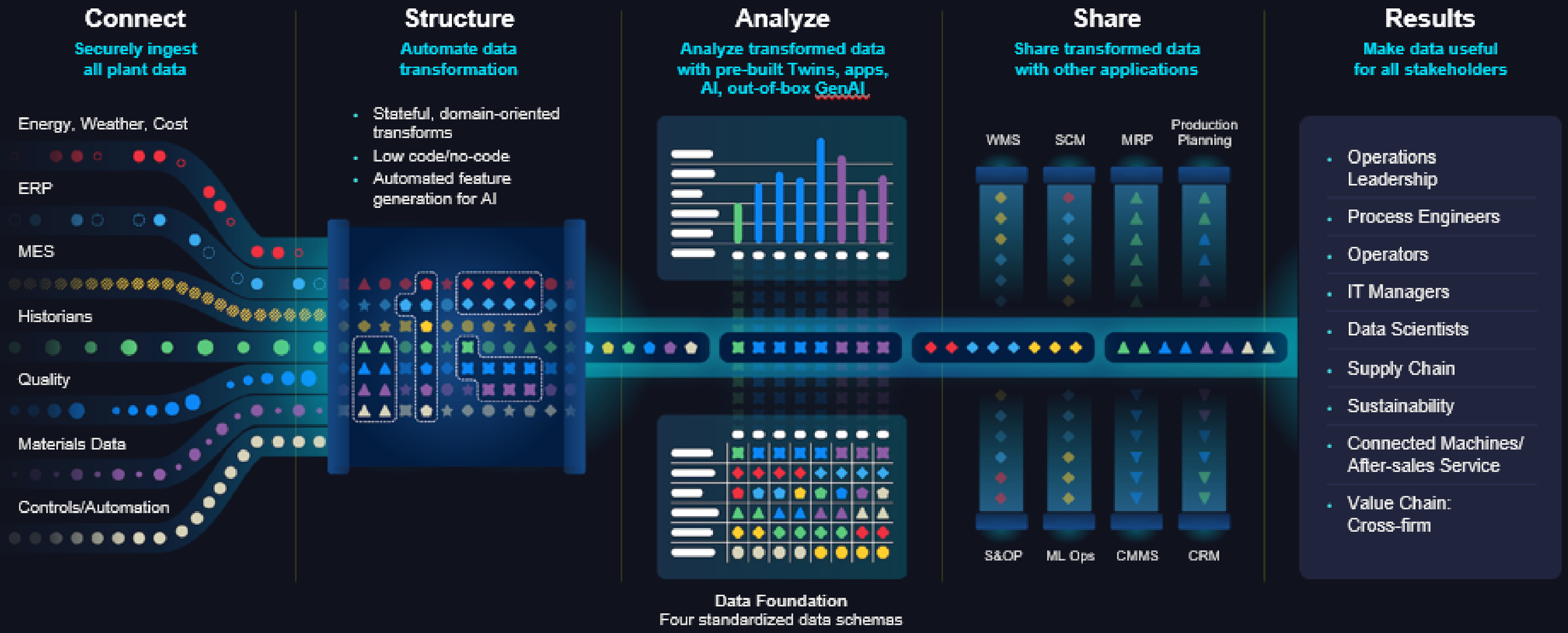
And empower the frontline with insight and capabilities that have never before been possible



- Empower
- Train
- Guide
- Advise remotely
- Maintain and fix with AI co-pilots

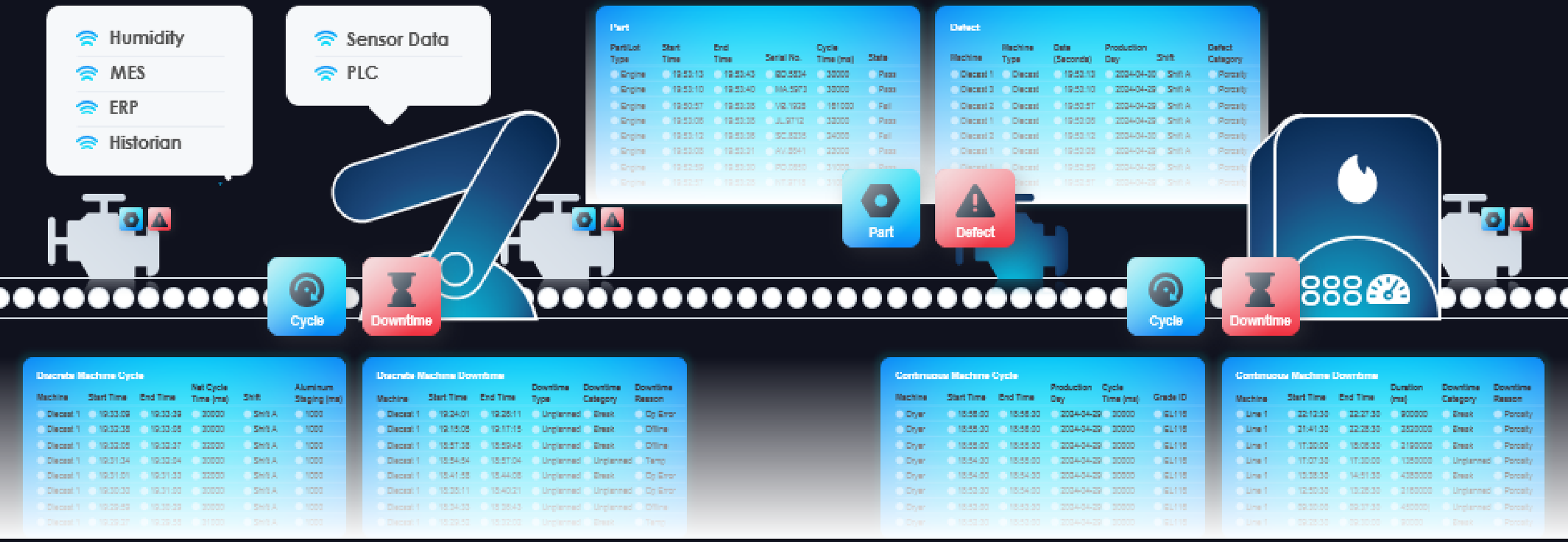
The Sight Machine solution: Structuring data is at the core

Data transformation is automated, early, and universal. Highly variable plant floor data is ingested, continuously structured into four common building blocks of information ("Data Foundation"), associated into models ("Twins") and analyzed in real time

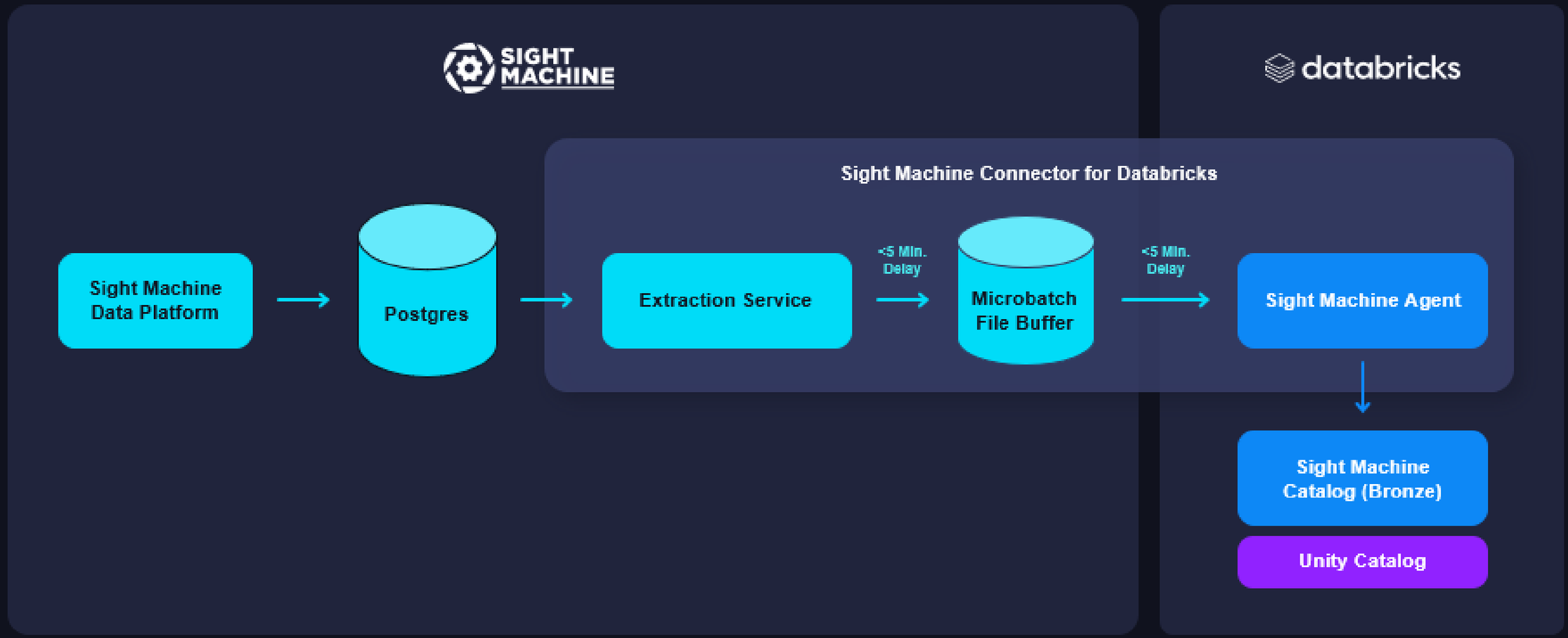


Sight Machine uses the four standardized data schemas to represent every value-added step in manufacturing

This common “semantic layer” for OT data makes the whole system relatable



Sight Machine's structured plant data is available for Databricks users to build analytics for the enterprise



Databricks and Sight Machine have partnered to make enterprise breakthroughs possible

Line Information System

- Manual centerlining
- Downtime reclassification
- Yield and cost information

Raw Materials

- Material delivery
- Material within specifications
- Material deviations
- Effect of age on materials

Defect-free Equipment

- Predictive maintenance supported both by technology and operators (Specific use case: VFD Predictive Maintenance)

Clean Equipment

- Establish and execute time-based cleaning
- Understand and detect threshold levels of contamination

Process Setup

- Setup following changeover
- One-time setup

Qualified Staffing

- Pull forward and flatten learning curve
- Near real-time detection of deviation from standard work

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Thank You

Please visit us at sightmachine.com

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