AL/ML in Manufacturing at Corning

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CORNING

M4.0 Digital Transformation

Digital Foundation Advancements

Digital Foundation

Digital Acceleration

Security, Data & Process Governance

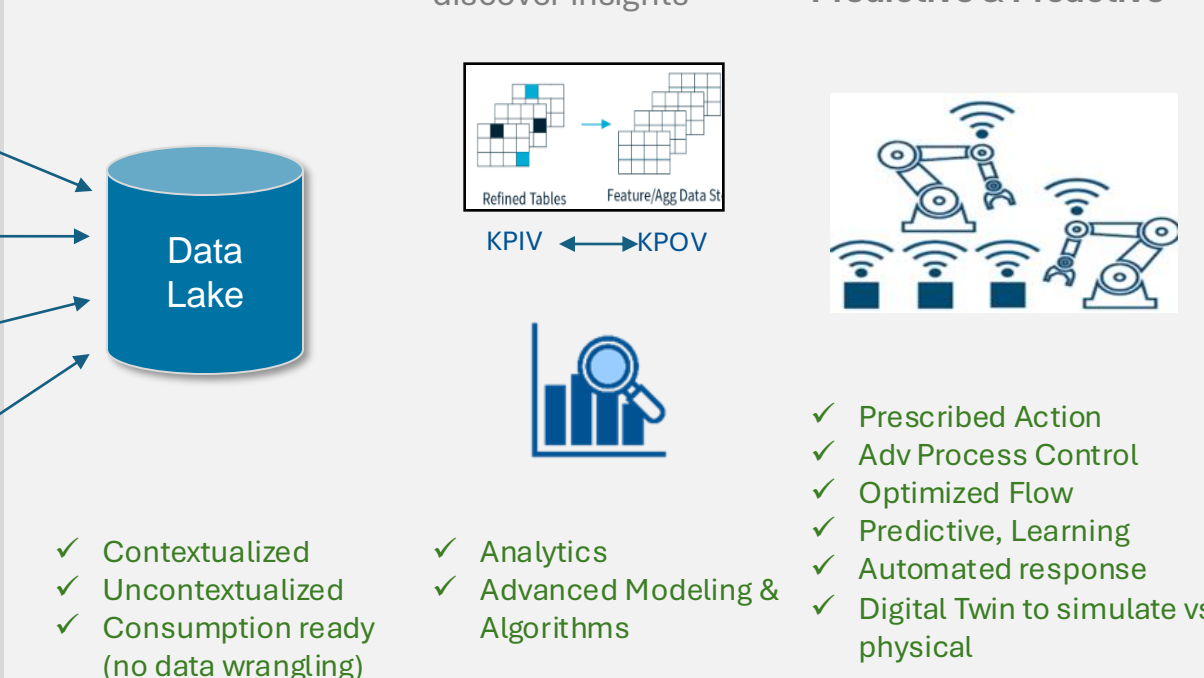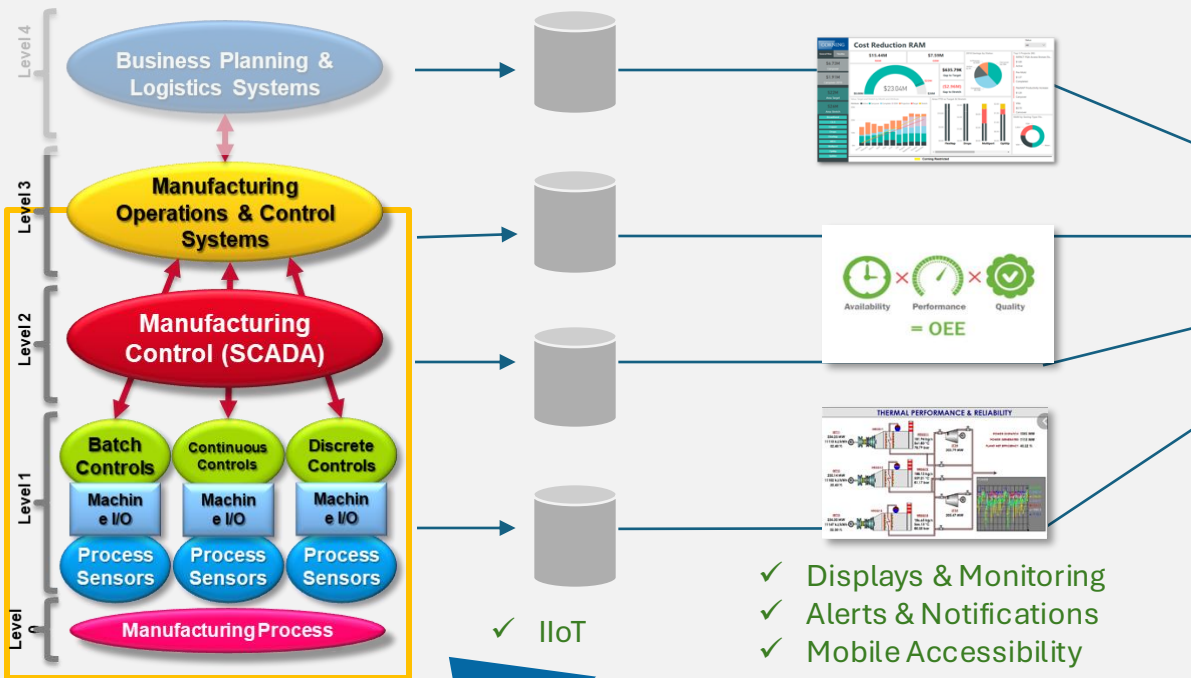| CREATE	COLLECT	RESPOND	UNIFY	CORRELATE	ACTIVE USE
Overall data quality, traceability & integration	Consolidate into local databases	Near real-time use of the data	Consolidate & relate across data sources	Process expertise & data science partner to discover insights	Use information to add business value **Predictive** & **Proactive**

Data Lake

Refined Tables → Feature/Agg Data St

KPIV ← → KPOV

✓ IIoT

✓ Displays & Monitoring
✓ Alerts & Notifications
✓ Mobile Accessibility

✓ Contextualized
✓ Uncontextualized
✓ Consumption ready (no data wrangling)

✓ Analytics
✓ Advanced Modeling & Algorithms

✓ Prescribed Action
✓ Adv Process Control
✓ Optimized Flow
✓ Predictive, Learning
✓ Automated response
✓ Digital Twin to simulate vs physical

Automated Control, Alerts, Predictions

Version 2.0, Jun 2021

AL & ML is differentiating Corning Manufacturing

ML Automation of Connectivity product inspection

- Inspection Step is augmented with ML Capability
- ML Model as Service
- Seamless Integration to the Operator at the Station

Fiber Process Engineering Assistant

- Chat interface to yield, WO, and controlled document data
- Recommends recovery steps based on AI Learning
- Automates a complex troubleshooting workflow/decision process

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