



Digital Transformation for Consumer Goods Manufacturing

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Dedicated to help facing the challenges of the Consumer Goods industry



Changing consumer demands

Need to manage an important number of SKUs.



CapEx and OpEx constraints

Need to extend life of aging equipment.



Climate change and resource scarcity

Need to optimize the use of raw materials, energy, and water.



Consumer trust and regulation

Need more product information, and traceability.



Changing workforce demographics

More difficult to attract and retain talent.

Digital Transformation Imperatives

Current challenges

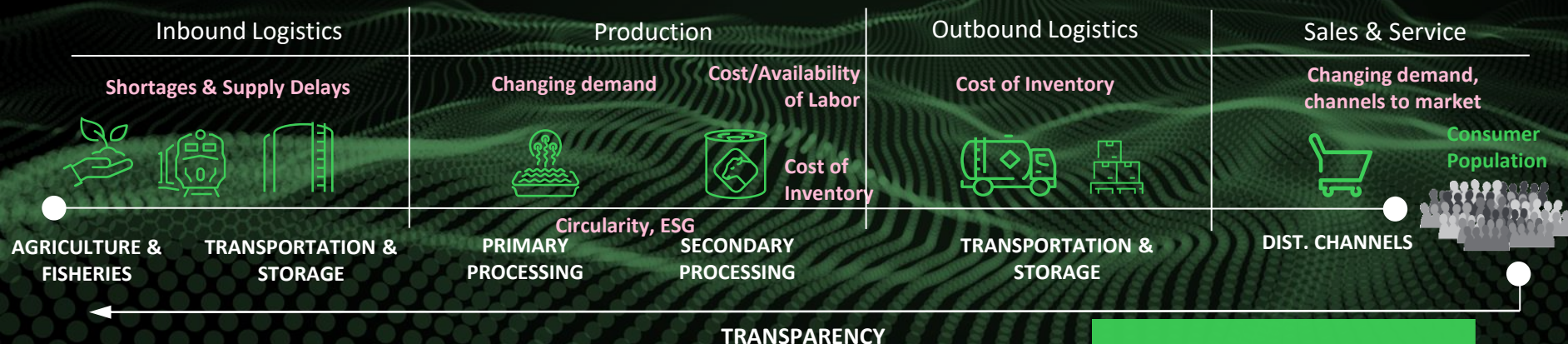
- Inflation
- Pandemic disruption
- Sustainability and provenance
- Consumer Preferences

Impacts



Transformation Imperatives

- Empower Workers
- Optimize Agile Operations
- Engage Customer
- Transform Offers

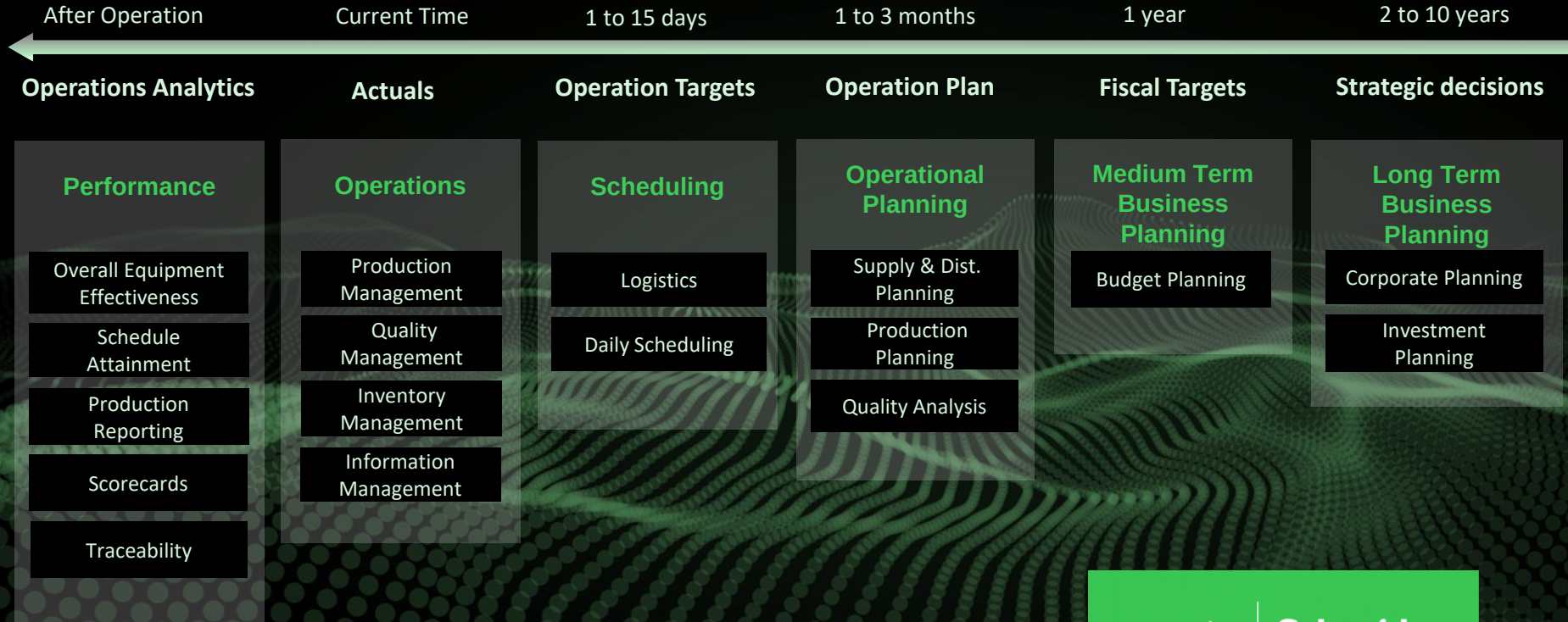


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Transformation Timeline

Digital transformation in manufacturing driven by supply chain efficiency & velocity



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To next level efficiency thanks to **five integrations**

Energy



Automation

End Point



Cloud

Design & Build



Operate & Maintain

Site-by-Site



Unified Operation Center

Opportunistic Supply



Sustainable & Integrated Supply

Optimizing the Manufacturing Value Chain

Visibility & Traceability

View Enterprise-Level KPIs and Scorecards Aggregated from Multiple Plants. Selectively Share Operations Data across the Enterprise, Supply Chain and Customers.

Production Schedule Optimization

Optimize Supply Chain Sales & Operations Plans around:

- Cost
- Sustainability
- Business agility

Manufacturing Execution

Execute Optimized Schedule and Manage all Work Processes

Connected Worker

Empower Workers to be productive, reduce errors and continuous improvement

Advanced Analytics

Continuously Monitor KPIs and Optimize Operations for:

- Reliability
- Efficiency
- Quality
- Sustainability

Industrial Information

Contextualized Operations Data that Connects Elements of the Digital Thread to Enable Optimization Across the Entire Value Chain

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A Roadmap for Digital Transformation Step 1 - 2

1. Establish a strategy

- What are the business outcomes required
- What operational excellence lever are priorities

2. Understand your current maturity

- Many organizations have a range of transformation behaviors
- Maturity is linked to teamwork and the quality and completeness of information
- Highest maturity exploits opportunities

Operations Imperatives

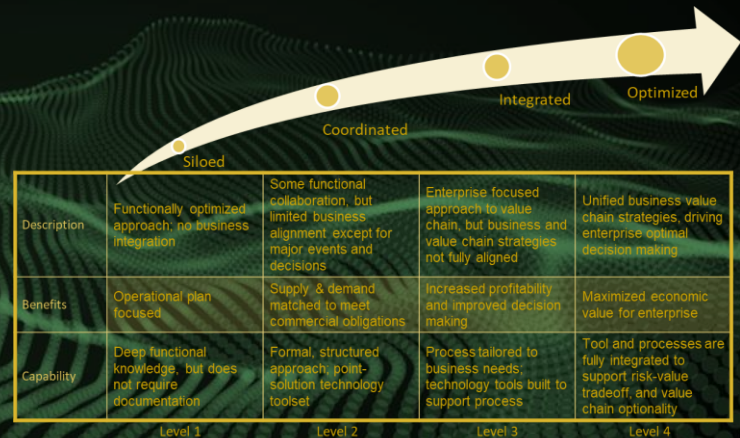
Improve Operational Performance

Expand Manufacturing Agility

Safeguard Quality and Assure Regulatory Compliance

Maximise Asset Reliability and Availability

Support Workforce Evolution and Capability



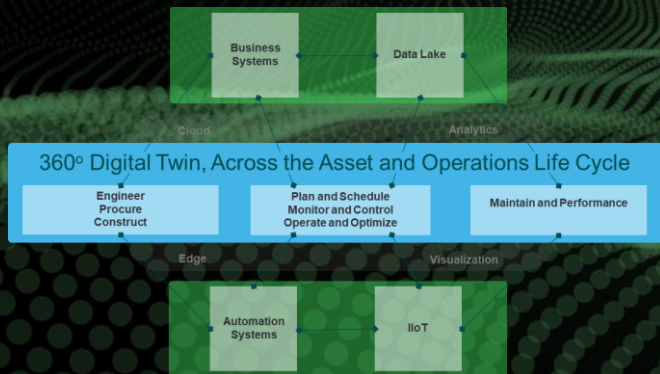
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A Roadmap for Digital Transformation Step 3 - 4

3. Define an operational architecture

- A 360° Digital Twin, across the Asset and Operational Life Cycle
- Brings commercial and technical flexibility to the architecture
- Agnostic connectivity, within the plant, to the supply chain, with business systems and to corporate data lakes
- Integration of information across the asset and operations life cycle



4. Define and execute a roadmap of value adding solutions

- Mobility on the plant floor
- Fully immersive virtual reality for training and operations
- Augmented reality
- IIoT Secondary sensing
- Machine learning and artificial intelligence
- Predictive analytics
- Advanced sensing and control
- Horizontal and vertical operational integration and global best practices
- Traceability through the supply chain to the consumer
- More agile supply chain and plant



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Business Values

*Process Nexus II has helped to solve this problem by reducing the quality traceability process time to **only one minute**. Without Process Nexus II, it would take us more than four hours to complete one traceability report.”*

Watcharapong Boonnam, Operation Excellence Manager at F&N Diaries.

*MES Performance coupled with New Belgium’s continuous improvement strategy, has increased our packaging line efficiency by **30%, saving us more than \$400,000 annually** in previously planned labor expenditures.*

Joe Herrick, Packaging Systems Manager

1 min 

\$400,000 

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Nestlé builds a strategic business partnership with AVEVA to enhance its engineering IS and IT systems

Monitoring & Control software and MES solution streamlines processes and boosts operational efficiency





Danone used AVEVA MES to
construct a bespoke digital
factory model to drive efficiency
and collaboration across its global
specialized nutrition business

**Core MES with 20 standard
functionalities ensures**

consistent, traceable product quality

production efficiency

collaboration and operational
financial efficiency across region

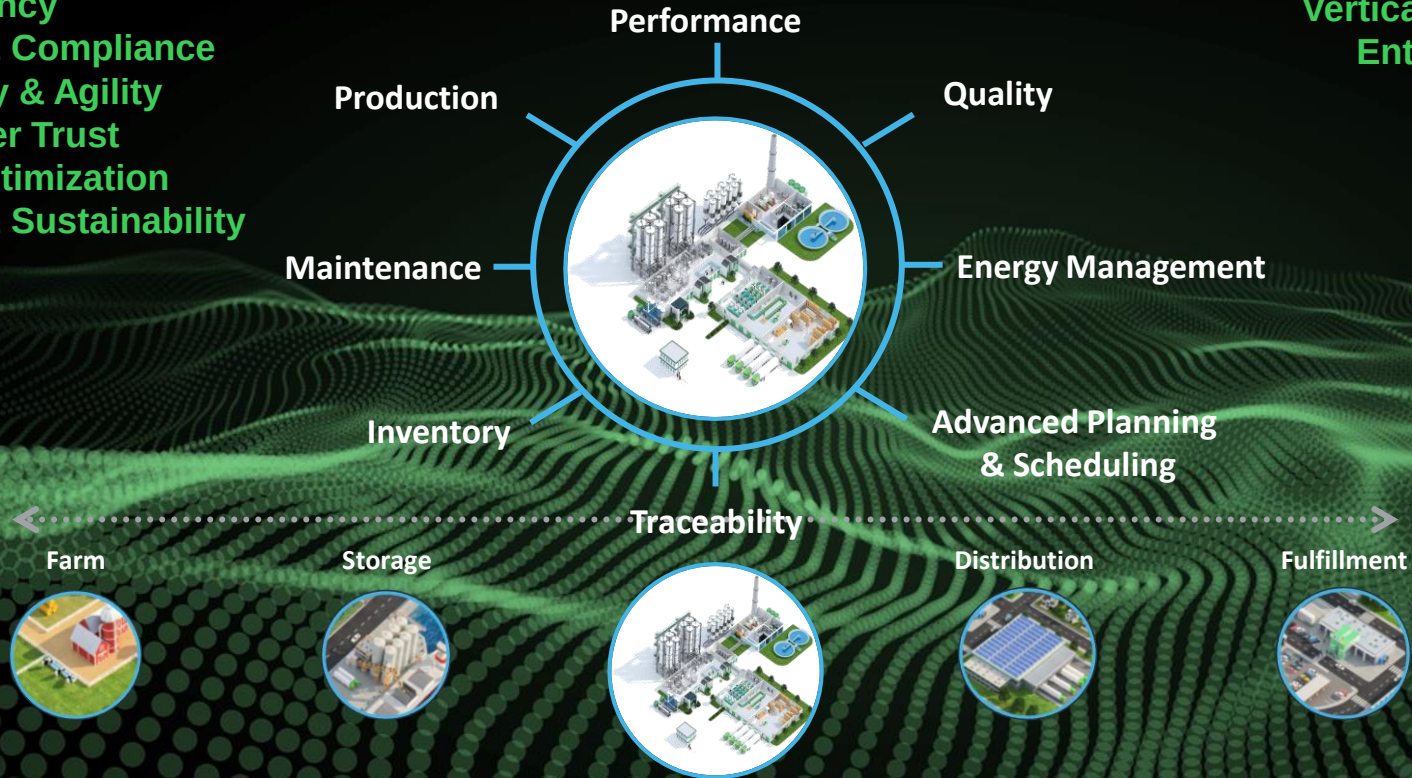


AVEVA

Expected Outcomes:

- Reduced TCO
- Capacity Improvement
- Supply Chain Accuracy & Resiliency
- Quality & Compliance
- Flexibility & Agility
- Consumer Trust
- Asset Optimization
- Energy & Sustainability

Factory of Future (Smart Manufacturing)



End to end:

Horizontal Integration:
Receiving to Dispatch

Vertical Integration:
Enterprise to OT

Thank you
Learn more about
EcoStruxure for CPG
at the Innovation Hub



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