

Manufacturing Digital Transformation | Abu Dhabi

What is Digital Transformation in Food & Beverage Production

Jakob Hall

Enterprise Business Development Leader



Continues Improvements and innovation

- the promise for Digital Industrial



Enterprise ambition

Environmental
sustainability

World class
supply chain

Quality
products and
services

Digital
industrial
enterprise

Digital maturity



Vendor



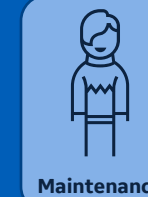
Procurement



Operator



Management



Maintenance



Quality



Channel



Customer

Digital capability



Digital foundation



Digital Transformation

- change how you operate



CURRENT SITUATION

- Reactive
- Lack of digital information
- Little innovation
- Little creativity
- Difficult to collaborate
- Continue improvements in silos



ASPIRATION

- Agile
- Creative
- Global collaboration
- Strong innovation
- Faster Time2Solution, T2Value and T2Market
- Vastly better CX
- Radically lower cost
- Higher revenue





Building a world that works

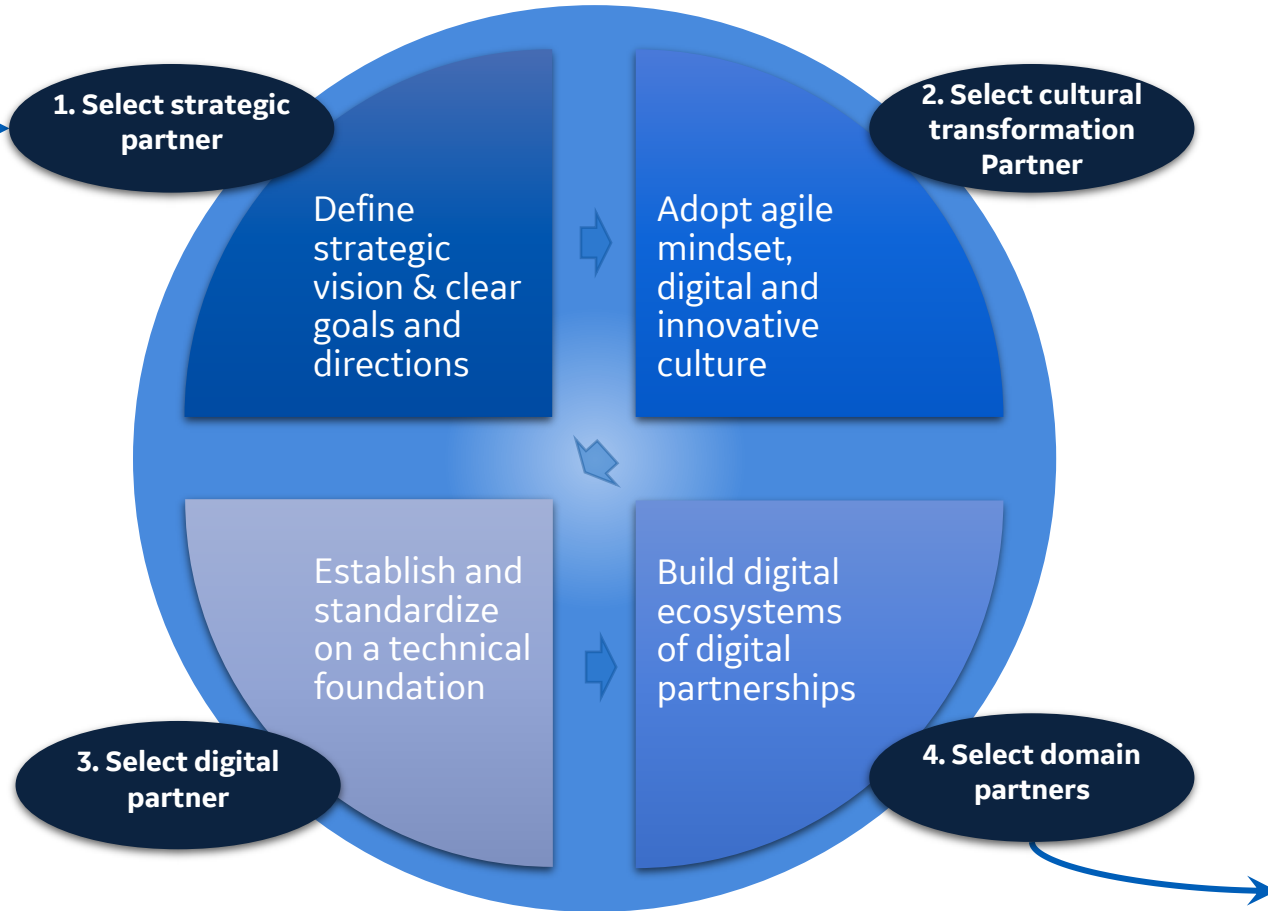
The path to Digital Transformation

- augment your own domain expertise with partnerships



CURRENT SITUATION

- Reactive
- Lack of digital information
- Little innovation
- Little creativity
- Difficult to collaborate
- Continue improvements in silos



ASPIRATION

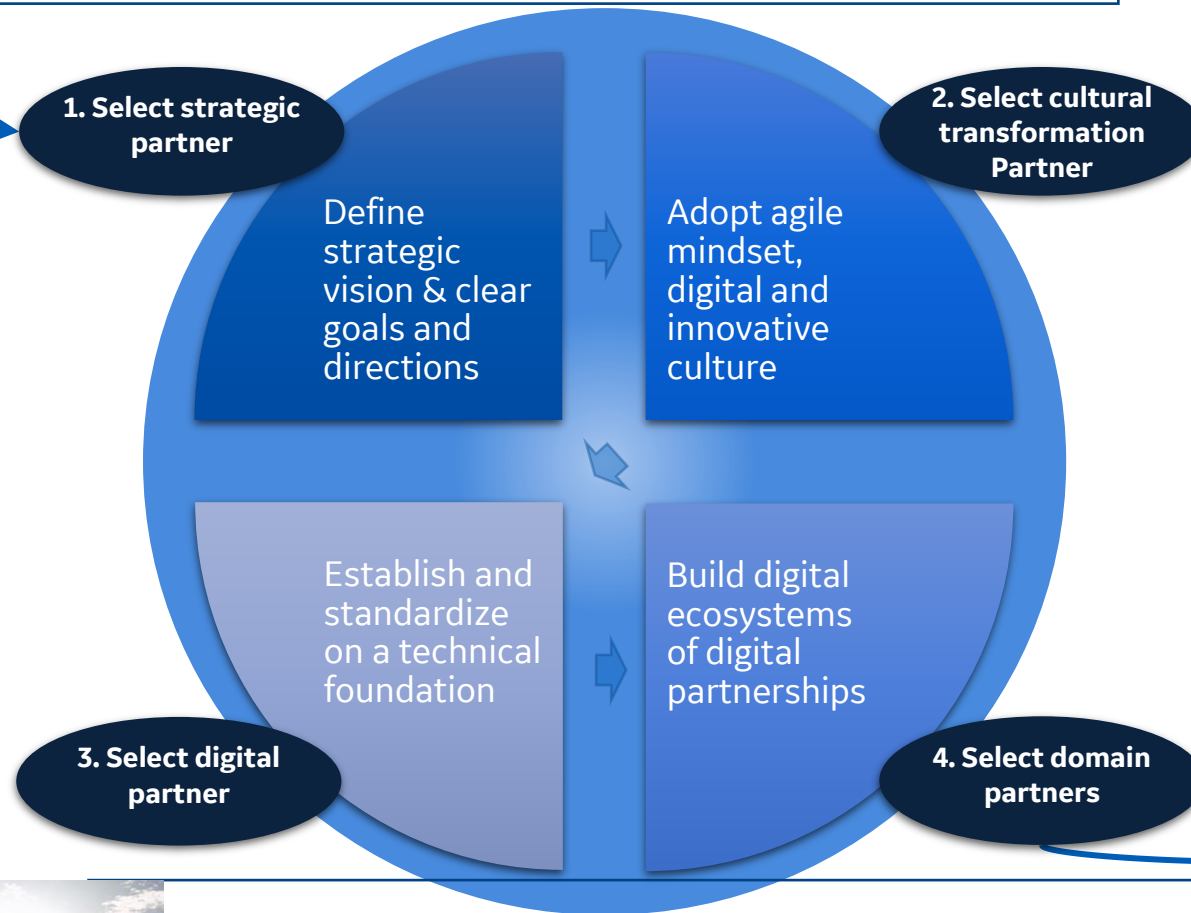
- Agile
- Creative
- Global collaboration
- Strong innovation
- Faster Time2Solution, T2Value and T2Market
- Vastly better CX
- Radically lower cost
- Higher revenue





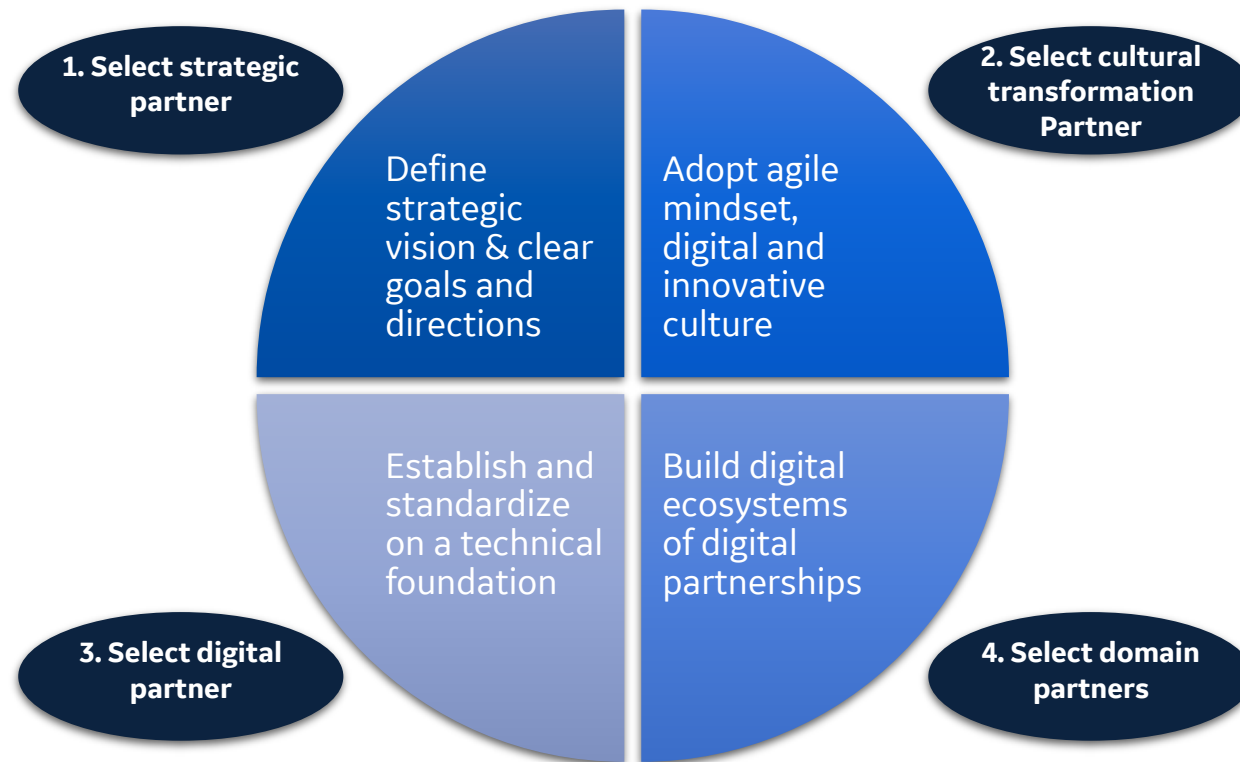
CURRENT SITUATION

What: reactively, lack of digital information, little innovation, creativity and collaboration, continue improvements in silos



ASPIRATION

What: Agility, creativity, collaboration, innovation, Faster Time2Solution, T2Value and T2Market, Vastly better CX, radically lower cost and higher revenue





CURRENT SITUATION

What: reactively, lack of digital information, little innovation, creativity and collaboration, continue improvements in silos



Pick **Strategy** Partner

1.

1.1 Define a **common strategic vision** & clear **goals and direction**

This define:

1.2 **Jobs-to-be-done**
Define new digital business models

Pick **Change Management** Partner

This requires an organization with

2. **Agile mindset, digital and innovative culture**

Pick **Technology** Partner

and a

3. **Digital platform(s)**

Pick **Domain** Partners


and

4. **Digital ecosystems of digital partnerships**



ASPIRATION

What: Agility, creativity, collaboration, innovation, Faster Time2Solution, T2Value and T2Market, Vastly better CX, radically lower cost and higher revenue

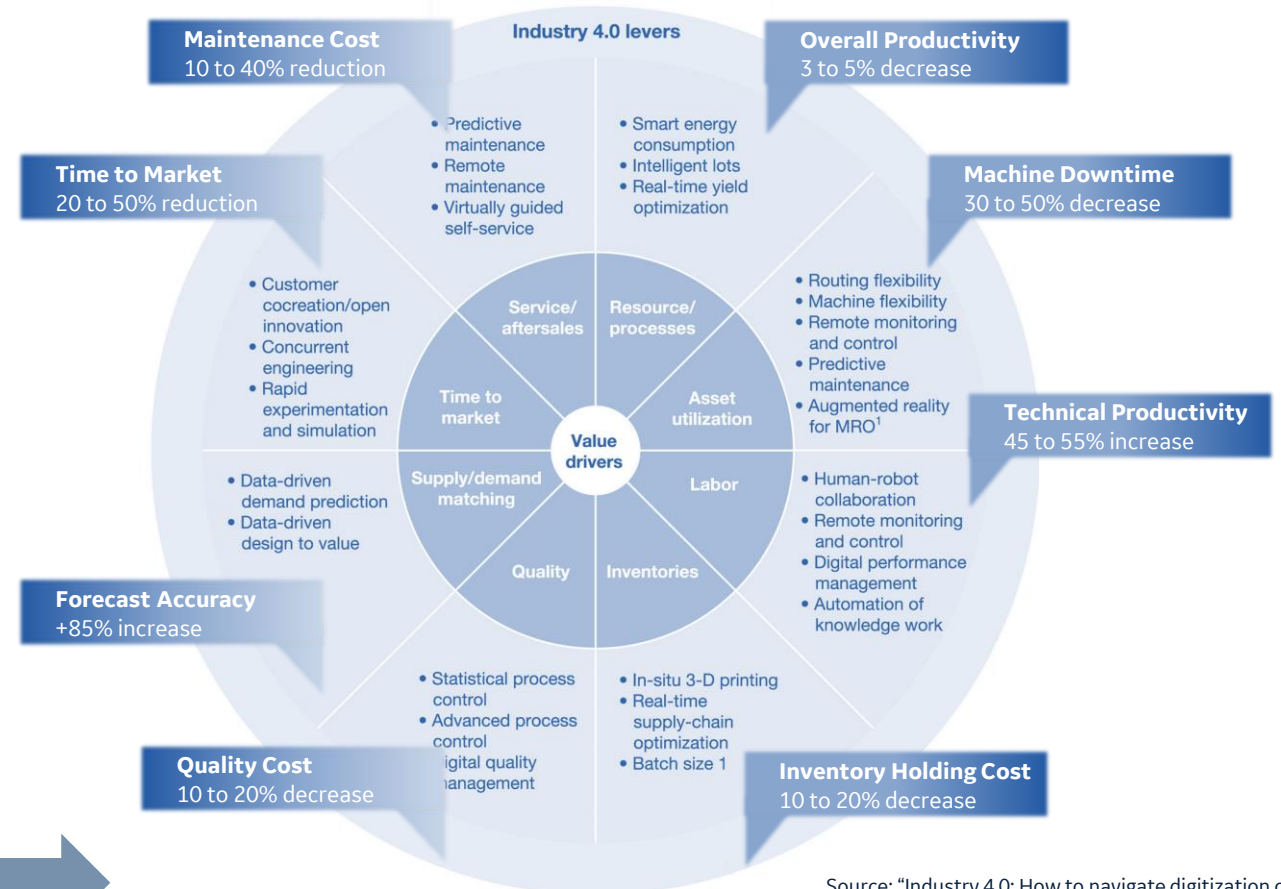
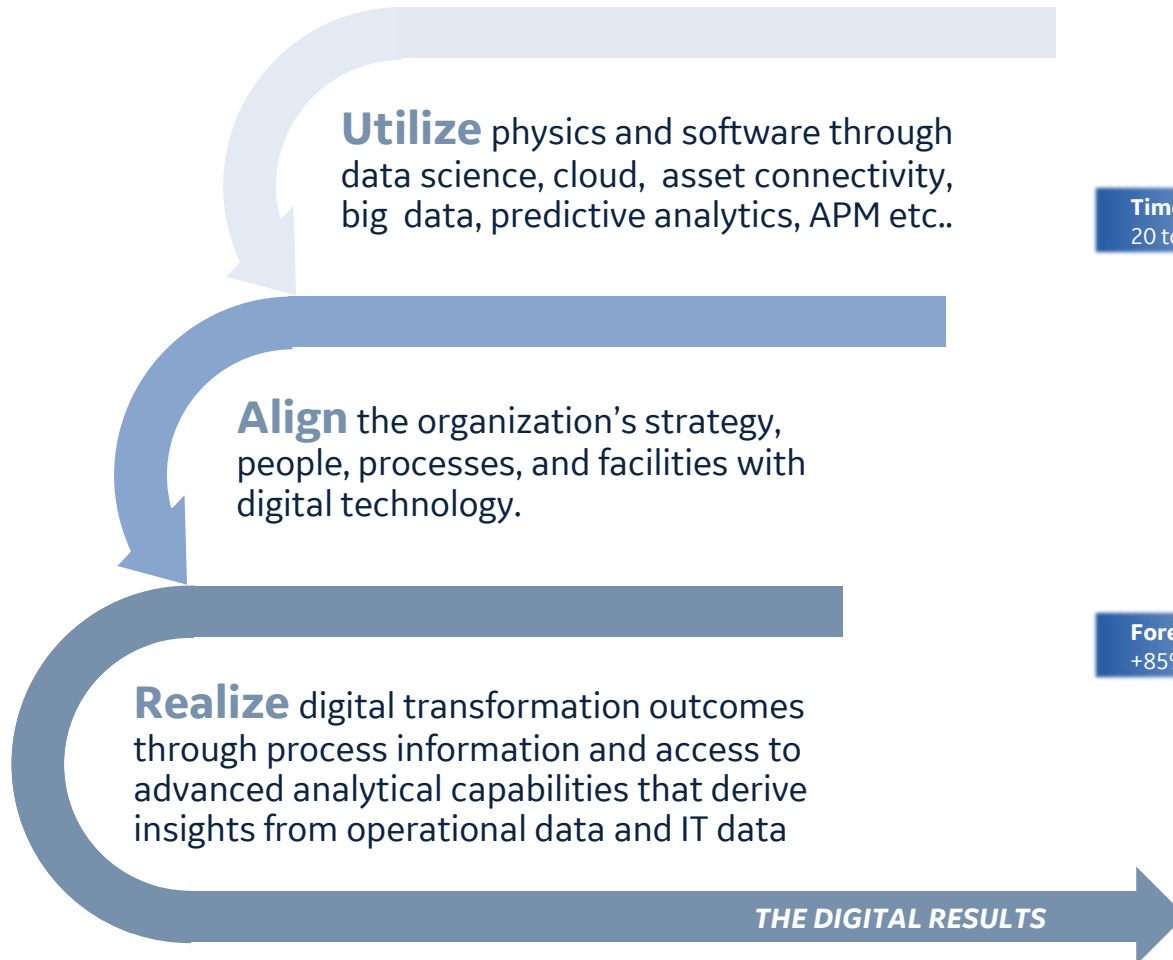
The background of the slide is a blurred image of a modern manufacturing facility. It features several robotic arms, likely KUKA, in a clean, industrial setting with overhead lighting and structural elements. The image is tinted with a blue and purple gradient, giving it a high-tech, digital feel.

“Smart Manufacturing is a fully-integrated concept, with various collaborative manufacturing systems that autonomously self-optimize to meet changing market demands and production conditions in real time.”

Source: *The Smart Factory*

What is Industrial Digital Transformation?

Industrial Digital Transformation is the key driver for Industry 4.0 through integrating physical and digital value



Source: "Industry 4.0: How to navigate digitization of the manufacturing sector," - McKinsey Digital, 2015

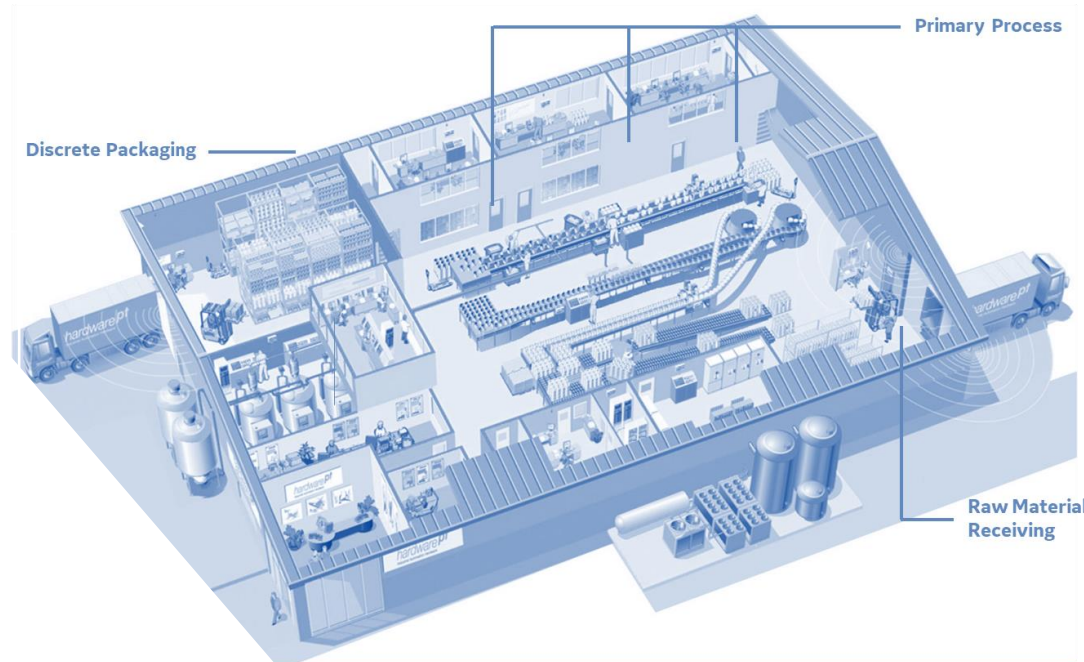
F&B Manufacturing Challenges



1

Responsive, and Adaptive manufacturing Collaboration & Coordination

- High Product Mix and High Volume
- Optimal inventory with volatile supply/demand
- Unpredictable product lifecycles
- Schedule compliance
- Predictive asset maintenance and dynamic scheduling



2

Digital plant operations

- Misalignment of strategy and operations
- Poor visibility to manufacturing operations within and across plants
- Inefficient use of resources and too much waste
- Lack of plant-specific manufacturing execution

3

Product quality & Sustainability. Realtime visibility and transparency

- Disconnected enterprise
- Ensure compliance and quality
- End to end digital traceability and genealogy
- Asset reliability impacting process reliability

Benefits of Smart Manufacturing



Increased revenue streams

- Responsive and able to self-adjust to new and changing markets

Cost reduction

- Lower inventory holding and material handling costs
- Reduced waste and downtime
- Lower energy usage

Productivity improvements

- Continuous real-time information and visibility
- Adaptability to suit fluctuation in production levels



Increased equipment availability

- 24-7/high availability automation
- Integration of IT, analytics and production
- Automated production control

Improved safety & sustainability

- Smart systems reduce energy consumption and waste
- Autonomous processes reduce human error and fatigue that leads to industrial accidents

Quality improvements

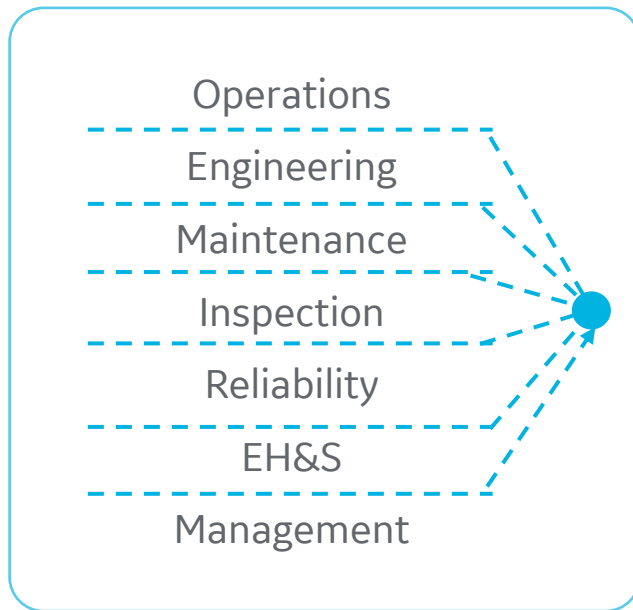
- Complete automation of production, checking, testing and adjustment processes

Source: [The Smart Factory](#); [Smart Manufacturing benefit](#)

Manufacturing Operation Excellence with GE Digital Solutions



LEVERAGE FRAGMENTED DATA
FROM EXISTING FLOOR SYSTEMS



ENRICH EXISTING FLOOR SYSTEMS
WITH GE INDUSTRIAL APPLICATIONS

- Risk analysis
- Asset strategy Development/Mgmt.
- Condition based and predictive maintenance
- Benchmarking
- Production management
- Efficiency management
- Quality management
- HMI/SCADA
- Digital twins
- Mobile rounds
- KPI's/Dashboards
- Custom analytics

INDUSTRIAL ANALYTICS VISUALIZATION

DELIVER
MANUFACTURING EXCELLENCE

Rapidly adopt to customer needs

Enhance product quality and
sustainability

Efficiency and productivity
With Digital operations



ENERGY

QUALITY

OPERATIONS

EHS

RISK

DEPLOYMENT OPTIONS: ON-PREMISES, CLOUD, HYBRID

Our Differentiators

