SMART

Turning a 60-year-old factory in a Sustainable and Digital Lighthouse

Marc Fromager, SVP Industrial Automation Services, Schneider Electric

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Schneider Electric has proven competencies, worldwide recognitions, & million hours of experience in digital and sustainability

Operating
200 Factories
100 Distribution Centers

100 Smart Factories and DCs
30 Zero Carbon Sites

Gartner

#2

Top 25 Supply Chain[1] 2022

WORLD ECONOMIC FORUM

6

World Economic Forum Lighthouse Factories

Corporate Knights
THE VOICE FOR CLEAN CAPITALISM

#1

World's most sustainable corporation 2021

Various production archetypes across ETO, MTO and MTS

400+
Supply Chain and Industrial Experts

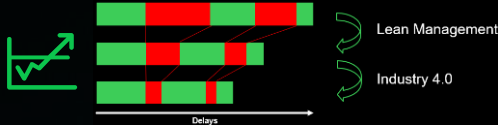Note: ETO = Engineering To Order; MTO = Make To Order; MTS = Make To Stock

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Our Smart Factory vision and where we can support: Digital for *efficiency* and Electrical for *decarbonization*

1 Operational Efficiency & Production

2 Asset Performance Data Contextualisation

3 Energy Management & Sustainability

4 Infrastructure & Cybersecurity

5 Governance & Change Management

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Smart Factory & Distribution Centers

A deployment plan that allows us to think big, act small & scale fast

Fast Scaling

2017	2019	2022

0 smart factories

- Validating solutions and started to build 11 show cases.

77 smart factories
10 smart distribution centers

- Proven result on ROI

>100 smart factories & distribution centers

- Analytics platforming with AI optimization
- Integrate Supplier and Customer in digitization

Concrete Benefits

A typical overall payback is **1.5-2** year, specifically*

Energy Efficiency: Average -30% cost saving.

Productivity: Average 30% CapEx reduction(engineering and commission); 28% OpEx reduction (maintenance costs); 22% equipment availability increase

Reliability: Average15% quality issues reductions

Safety: Average 20% workforce safety improvements

Sustainability: Average 20% CO_2 footprint reduction

*Based on both customer projects & Schneider own entities

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Brownfield Smart Factory transformation

Schneider Electric Manufacturing Facility, GSC Lexington, KY

Manufacturing load centers and safety switches

100% Schneider Electric — 62-year-old facility

500 employees as of 2022

485,000 ft² building

Core competencies

- Metal stamping
- ECOAT paint
- Plating

- Injection molding
- Power and free automated material handling
- Semi-automated assembly

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Smart Factory empowered by AVEVA

A digital core model

Schneider Offer
AVEVA Offer

Secure business integrity with Cyber-secured defense

Optimize Energy
EcoStruxure Power Monitoring Expert

Reduce energy consumption, decrease environmental impact
EcoStruxure Resource Advisor

Improve building operations
EcoStruxure Building Advisor

Optimize Maintenance
Enterprise Asset Performance Management

Empower Operators Remote assistance
EcoStruxure Augmented Operator Advisor

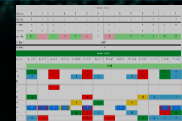**Improve production efficiency and quality**
AVEVA Discrete Lean Management

Drive production perfomance
Digital Short Interval Management

Manage Shop floor competencies
Versatility

Secure and analyse data
AVEVA Insight

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Digital Operations Management

Empowered operators

Agile Management

Asset Performance management

Process Efficiency

Business value

Simple, effective means of monitoring process performance and alerting necessary resources upon process failure

- Standardizes process reporting
- Simple dashboarding of process performance
- Resource notification & escalation for process failures and ensures quality

Results

- Improves response / reduces mean time to repair
- Improves performance accountability and analysis of downtime
- Key Performance Enabler – 6% Labor Productivity

Apps, Analytics & Services

Edge Control

Connected Products

AVEVA Manufacturing Operation Management

AVEVA Edge

Schneider Electric PLC

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Consistent Performance across all digital transformation pillars

Operation Excellence

- Material movement
- $1M labor savings
- $500K WIP reduction

Reliability and asset management

- Digital procedures
- 20% MTTR reduction
- ROI < 2 years

Agility and operator empowerment

- Alarm notification
- 90% paper reduction
- ROI < 2 years

Energy efficiency

- 3.4% year-over-year energy savings since 2012

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Advanced Lighthouse 2020
First Schneider Electric End-To-End
Sustainability Lighthouse 2021
First Schneider Electric — one of three globally

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Supporting our customers with our experience

Leveraging experience from Schneider's Smart Factory deployment

Le Vaudreuil
France

Lexington,
USA

Wuxi,
China

Wuhan,
China

Monterrey,
Mexico

Hyderabad,
India

Batam,
Indonesia

Industry 4.0
Lighthouse facilities

Our expertise, combined with our technologies serve our customer supply chain

Sustainability	Smart Manufacturing
Supply Chain	Lean

Smart Sensors

Asset management

Process Analytics
Secondary sensing

2ndGartner®
Supply Chain Rankings

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Nexans

MERATUS

·faurecia
inspiring mobility

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Schneider Electric Consulting – Industry 4.0

A Digital Transformation program is …

Multi use-cases
- Operation efficiency
- Augmented Workforce
- AI based process optimization
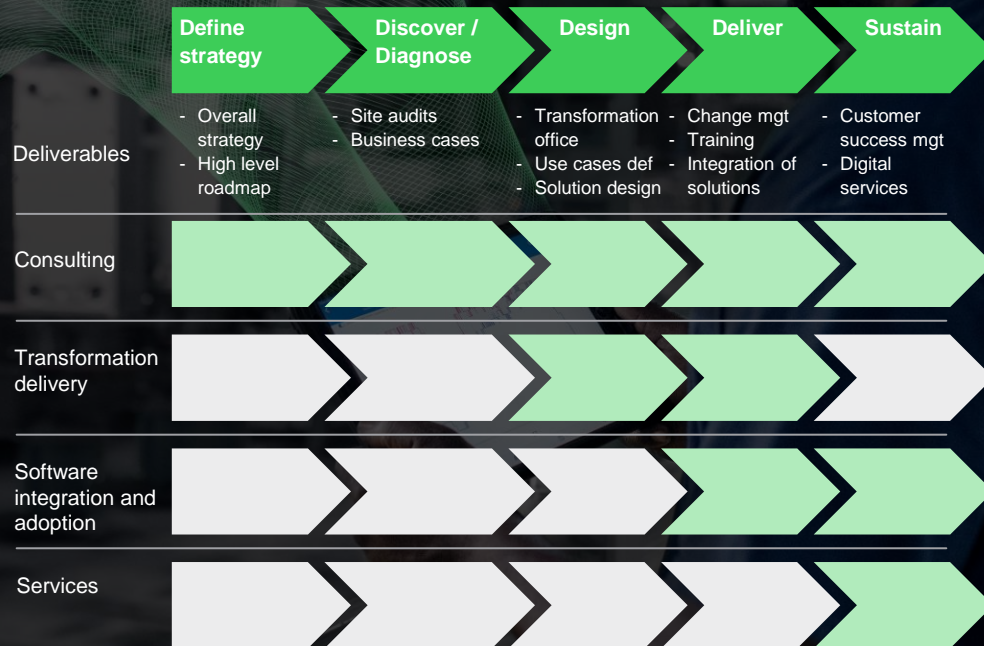- Energy optimization
- Cybersecurity
- And more …

Multi-sites
- From pilot to scale

Multi-years
- From short term wins to deep operations transformation

Schneider Electric provide an integrated and end-to-end delivery of the transformation

	Define strategy	Discover / Diagnose	Design	Deliver	Sustain
Deliverables	- Overall strategy - High level roadmap	- Site audits - Business cases	- Transformation office - Use cases def - Solution design	- Change mgt - Training - Integration of solutions	- Customer success mgt - Digital services
Consulting					
Transformation delivery					
Software integration and adoption					
Services					

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Public