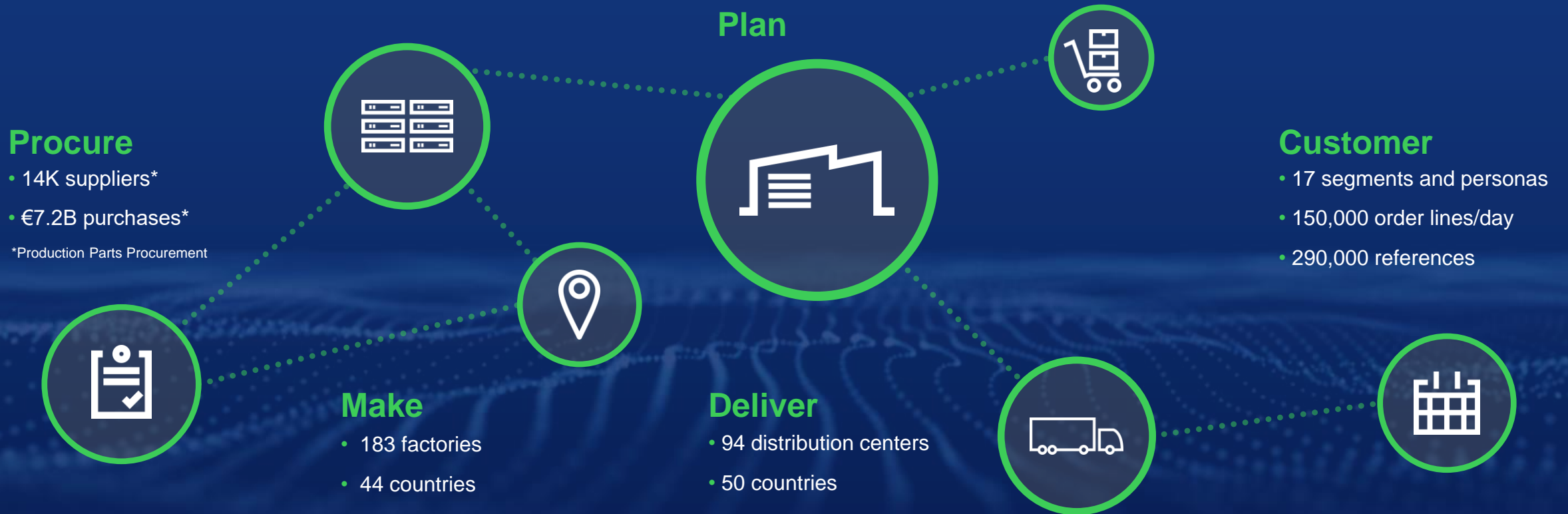# Smart Food Factory
– how to approach digital transformation?

An applied approach to one of the Mega Trends in the industry

View on Schneider Electric - not as your supplier but as a manufacturing company

Global Supply Chain

Plan

Procure
- 14K suppliers*
- €7.2B purchases*

*Production Parts Procurement

Customer
- 17 segments and personas
- 150,000 order lines/day
- 290,000 references

Make
- 183 factories
- 44 countries

Deliver
- 94 distribution centers
- 50 countries

80,000 employees in Supply Chain

By end 2020

It is not a question of "if" but of "how" and "how fast"

EcoStruxure™ Smart Factory & Distribution Centers

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

Fast Scaling

2017	2019	20...
0 smart factories	**77** smart factories **10** smart distribution centers	**>100** smart factories & distribution...
• Validating solutions and started to build 11 show cases.	• Proven result on ROI	• Analytic platform optimiz... • Integra... and Cu... digitiza...

GARTNER'S GSC TOP 25 RANKING

—— Schneider Electric Position

| 2016	2017	2018	2019	2020	2021	2022
18	17	12	11	4	4	2

The Gartner Global Supply Chain Top 25 for 2022

Approx. 10 sites recognized as Digital Lighthouses by the World Economic Forum (France, USA, Indonesia, Mexico, China, Singapore, India...)

Getting it all digital and put it in the cloud?

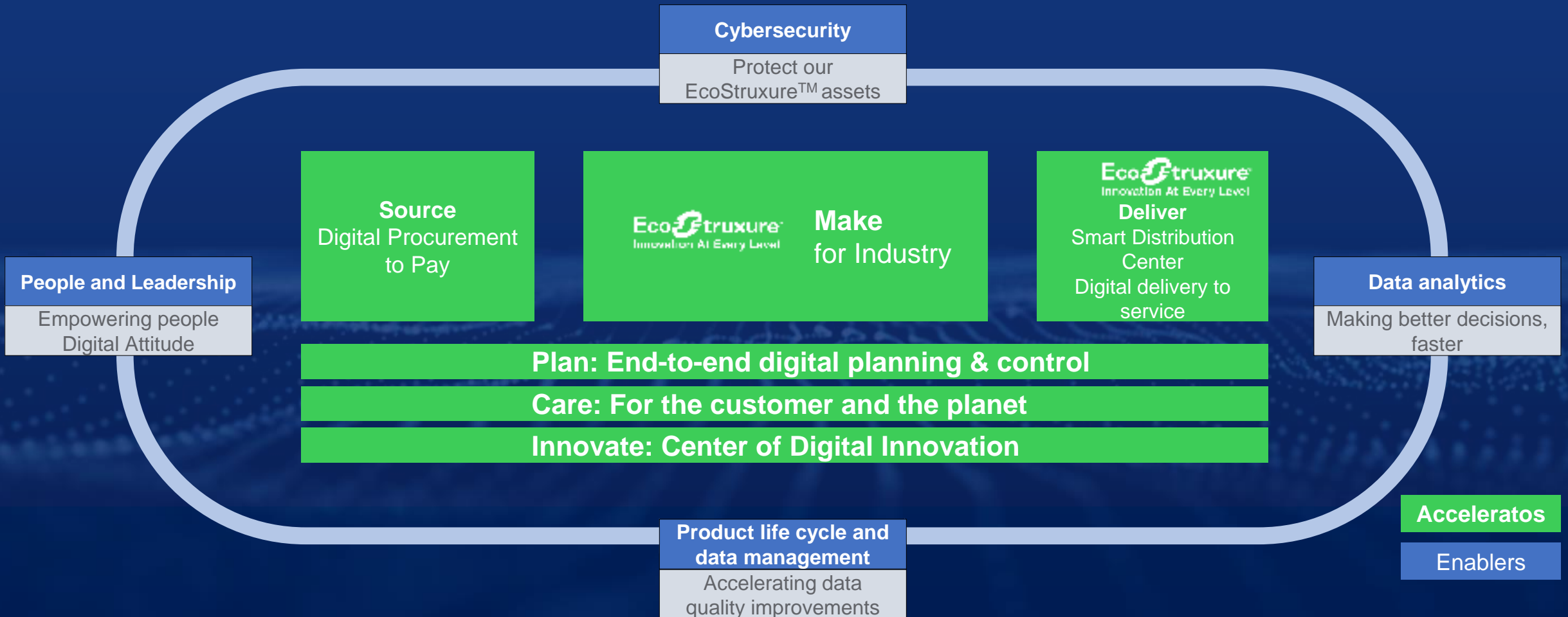Digitalisation is more than just applying some AI on data in the Cloud or some isolated use cases!
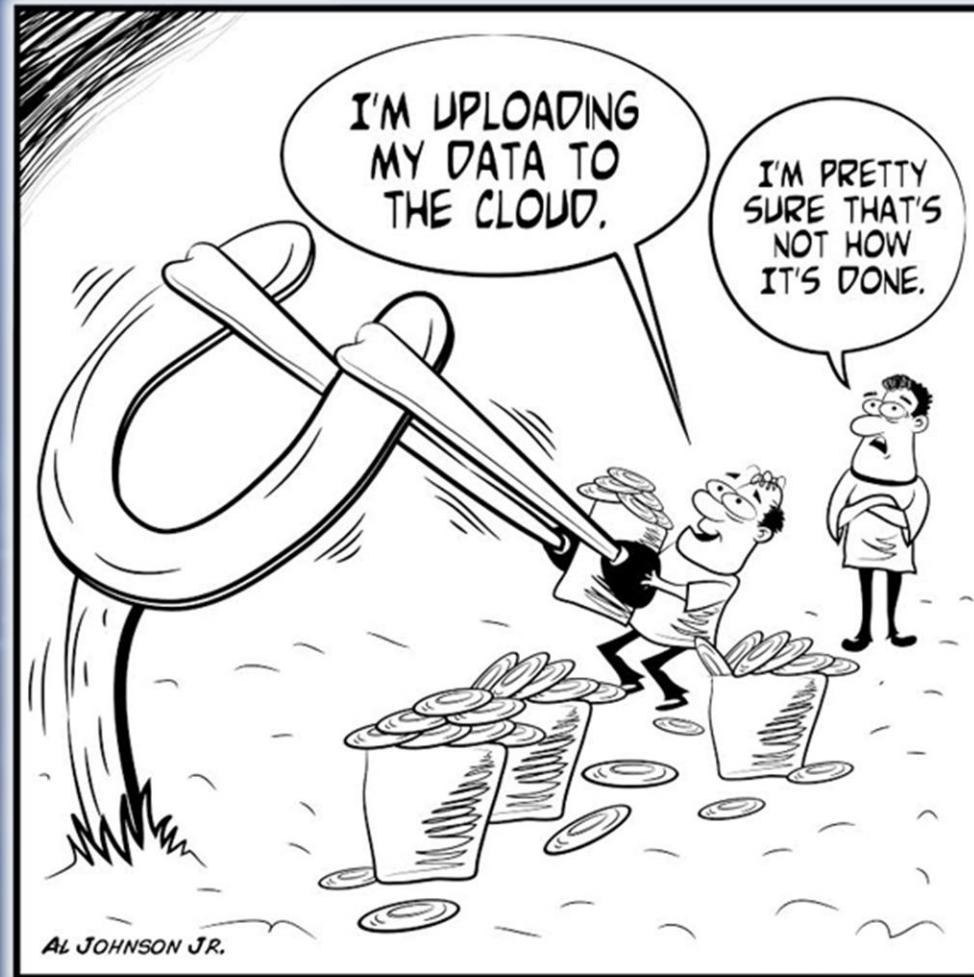
It is a full transformation process that needs to be managed and governed to be successfull

Tailored, sustainable, connected supply chain 4.0

Digitalisation to empower our teams, improve customer experience and end-to-end operational efficiency

Cybersecurity

Protect our EcoStruxure™ assets

Source
Digital Procurement to Pay

EcoStruxure Innovation At Every Level **Make** for Industry

EcoStruxure Innovation At Every Level **Deliver** Smart Distribution Center Digital delivery to service

People and Leadership

Empowering people Digital Attitude

Data analytics

Making better decisions, faster

Plan: End-to-end digital planning & control

Care: For the customer and the planet

Innovate: Center of Digital Innovation

Product life cycle and data management

Accelerating data quality improvements

Acceleratos

Enablers

Internal

Global Program with decentralized leadership

**Governance
Guidelines
Standardization**

Program

Program + Software + Data IoT / Technologies

**Benchmark
Innovate
Deploy**

Regional **20** **Subject matter experts
from all geographies**

**Innovate
Deploy**

Factories **80** **Smart Factory leaders**

Build the Digital applications portfolio

And increase it continuously

Pilots ➡ **Standardize** ➡ **Scale**
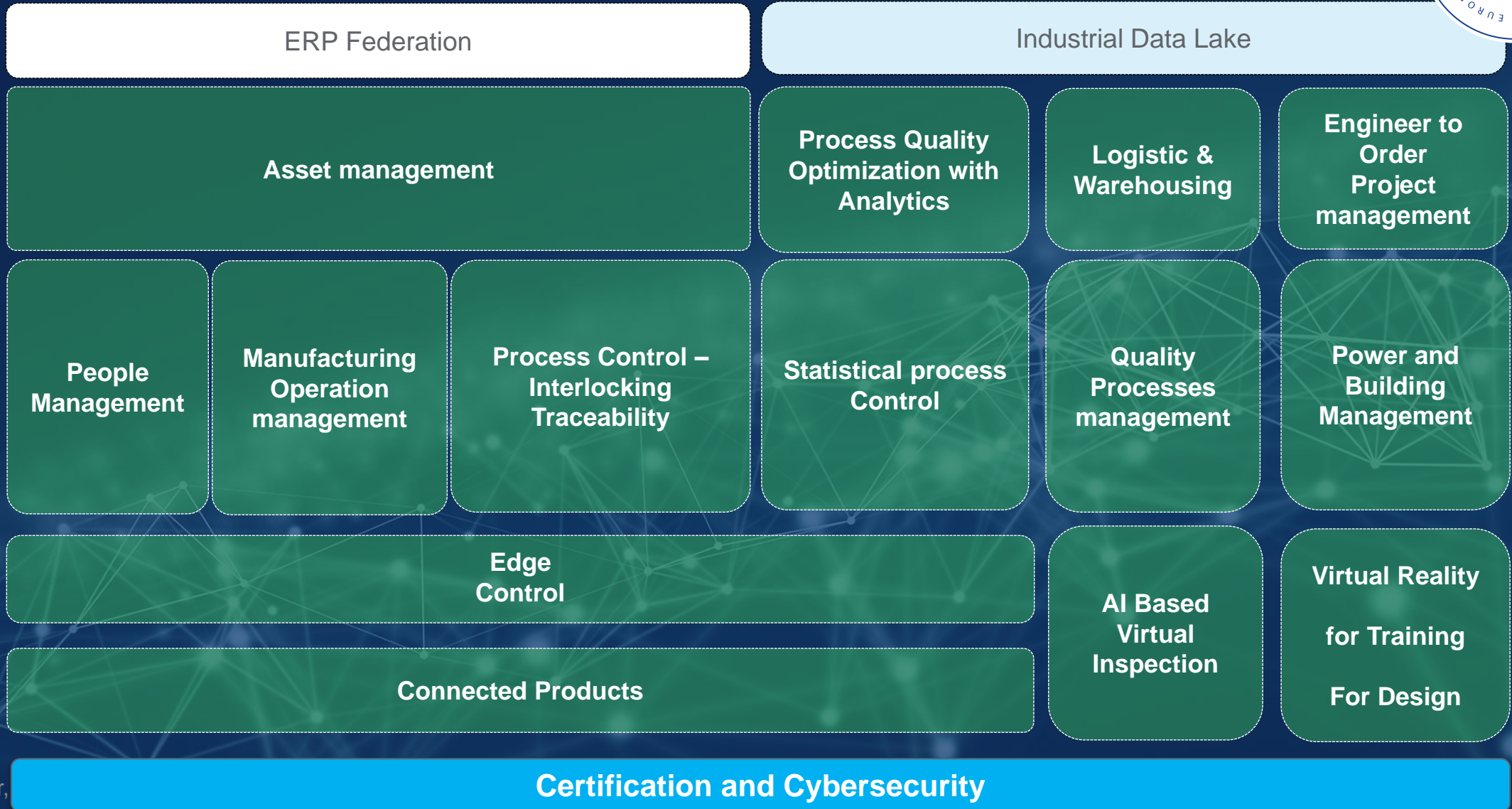
Business need
Regional initiative
Measurable results

Selection
Standard Framework
IT / Procurement
Line of Business

Diagnosis per site
Training

Agile Mode – 3 Months Horizon ➡ **Project Mode** ➡

Internal

EcoSystem of 100 solutions deployed at scale

EHEDG

ERP Federation

Industrial Data Lake

Asset management

Process Quality Optimization with Analytics

Logistic & Warehousing

Engineer to Order Project management

People Management

Manufacturing Operation management

Process Control – Interlocking Traceability

Statistical process Control

Quality Processes management

Power and Building Management

Edge Control

AI Based Virtual Inspection

Virtual Reality for Training For Design

Connected Products

Certification and Cybersecurity

Eating our own food – examples for Ecostruxure solutions

Resource Advisor
Energy and sustainability data visibility.

Power Advisor
Performance and power reliability.

AVEVA Lean Digitization System (LDS)
Performance, Andon, work order, Kanban, work instructions.
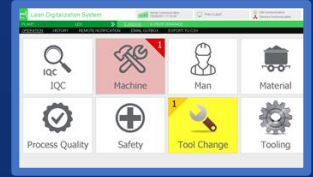
Power Monitoring Expert or Facility Expert*
Energy optimization.

* for sites >1GWh/yr

AVEVA Process Management System – Wonderware System Platform

Maintenance AVEVA Enterprise Asset Management (EAM)

AVEVA Insight
From IIoT to analytics
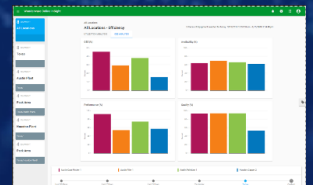
Augmented Operator Advisor
Maintenance and settings with in-hand information.

Empowered employees are leading the digital transformation

Enabler: People & leadership

Competencies of the future

- Evolving skillset (hard and soft)
- Digital technologies all pervasive
- Increased focus on analytics driven by new technologies

Constant learning culture

- Prepare future adaptations through constant learning experience for blue-collar workers
- Technology solutions offering easy access

Leadership in supply chain of the future

- Higher empowerment of blue-collar workers through digital – direct link with suppliers to share and manage quality issues
- Management transformation: from technical to coaching skills

Performance delivered by the deployment

Measure in 2020

Performance

Base 100

+62%

Standard Sites

Lean Manufacturing
+
Smart Factory

Lean & Digital Index
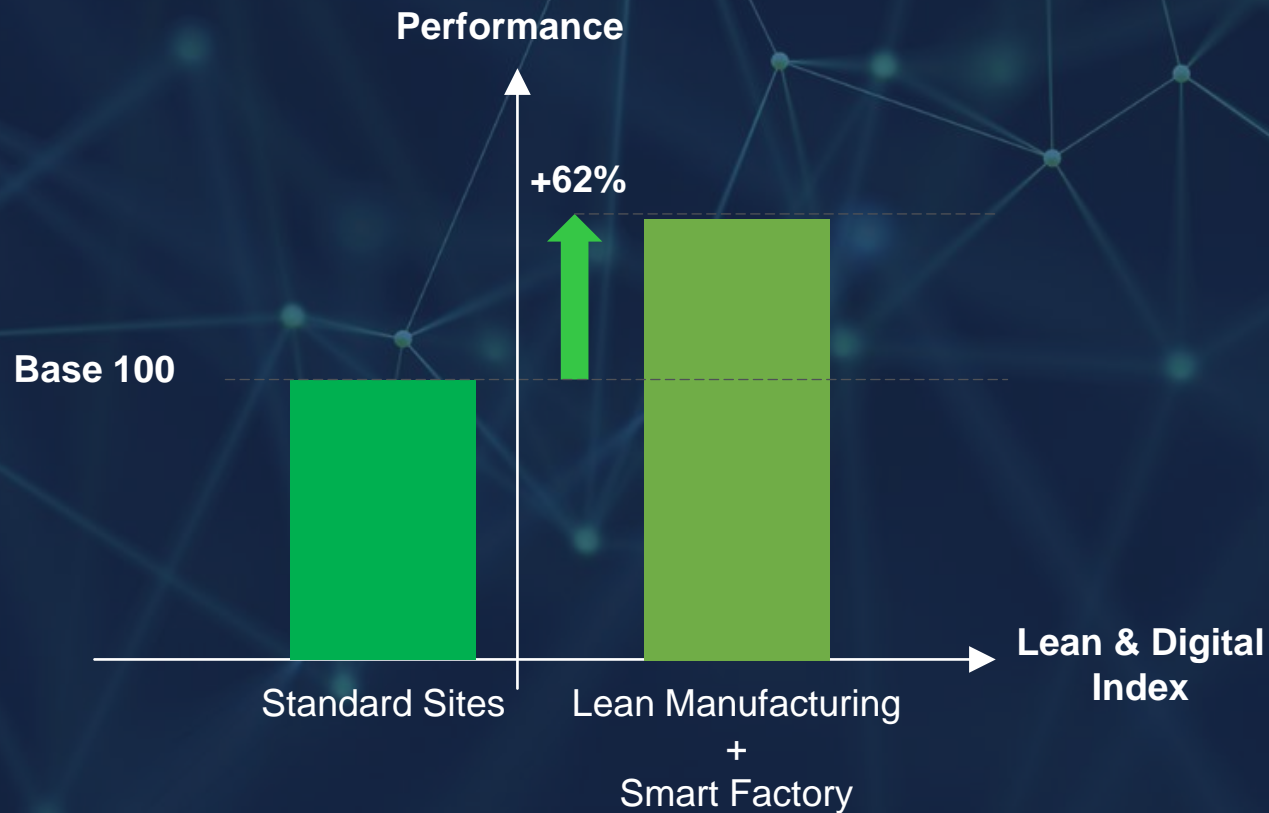
Concrete Benefits

A typical overall payback is **1.5-2** years, 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

Perimeter: based on financial, lean audit and digital index data from 200 sites

*: based on both customer projects & Schneider own entities

What could be a typical Use Case for Cleaning

We make our know-how in digital transformation and the CPG Industry available for our customer

Innovative Sensor from partner 4T2

Algorithms embedded in Process Control System on the Edge, making
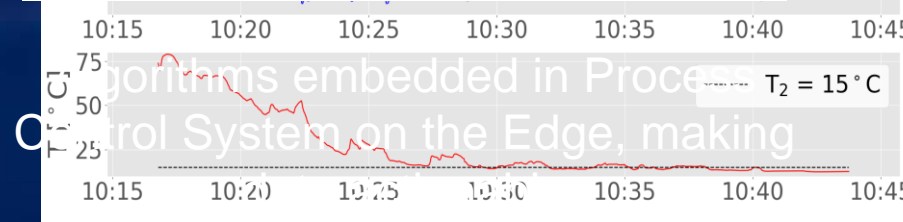
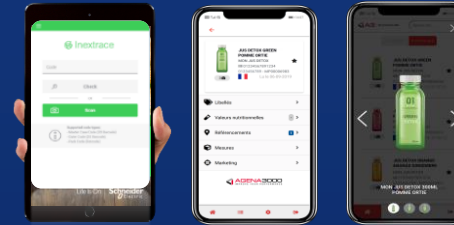**Advanced Data Analytics at the Edge and in the Cloud to optimize and to benchmark different sites**

What could be a typical Use Case beyond cleaning and beyond the site

Ecostruxure Traceability Advisor

GS1
Compliant solution
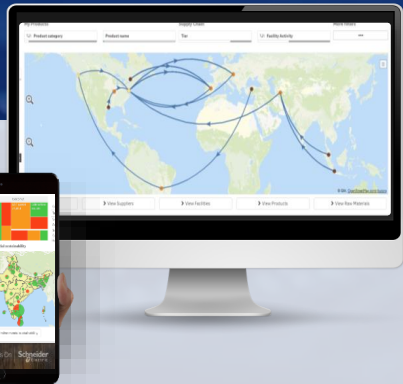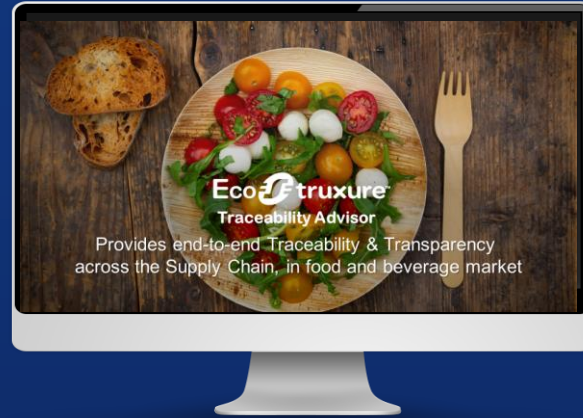
Origin Module

- Map your suppliers & identify risks
- Check certificates compliance
- Ensure a credible transparent supply chain
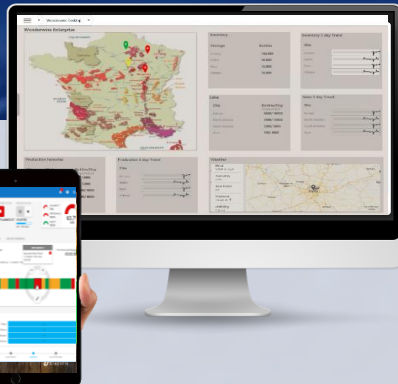
Digital solutions for the plant

- Plant traceability is a prerequisite in this journey
- Paperless solutions for your plant including CIP data
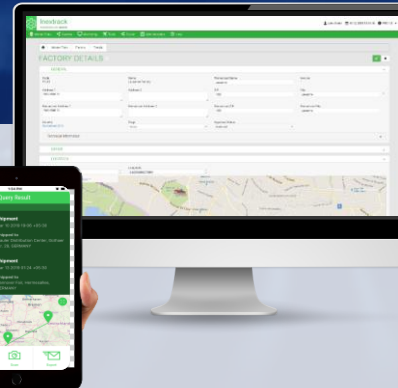
Track & Trace Module

- Anti-Counterfeiting
- Digital tax verification
- Supply chain optimization
- Events tracking
- Inventory management
- including CIP tracking
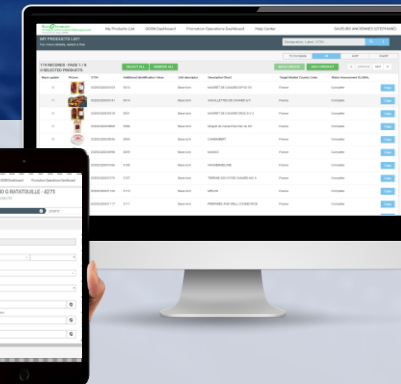
PIM Module
Product Information Management

- Your single source of truth and trust for your product data
- Increased data accuracy and availability
- Operational efficiency: reduction in labour costs and time to market
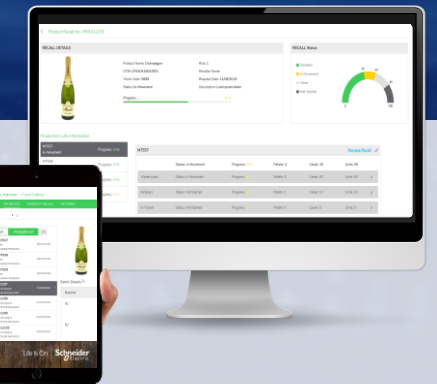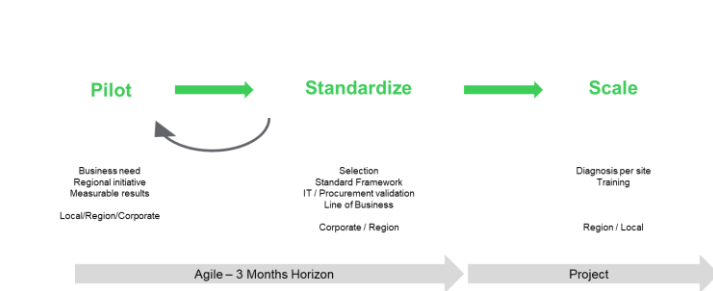
Food Safety Module

- Save time in recalling your products in the supply chain
- Cost savings in product recall batch sizes
- Cost savings on insurance premiums

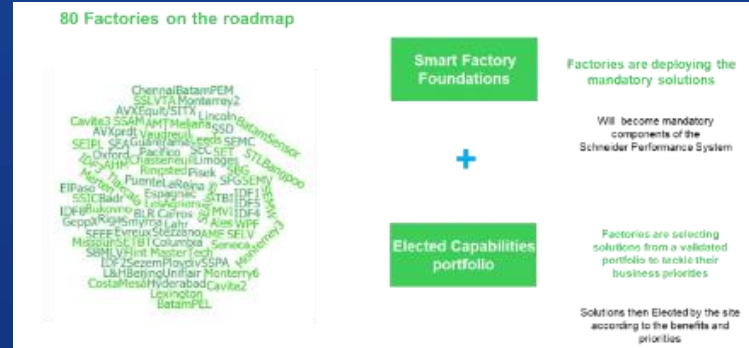# Summary: Smart factory program – some guidelines for Speed
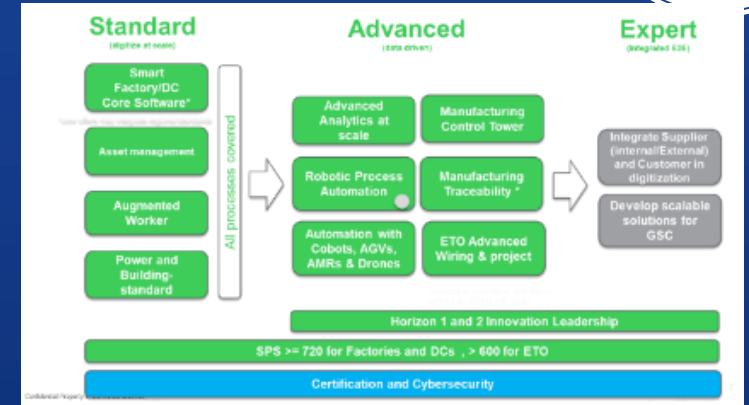
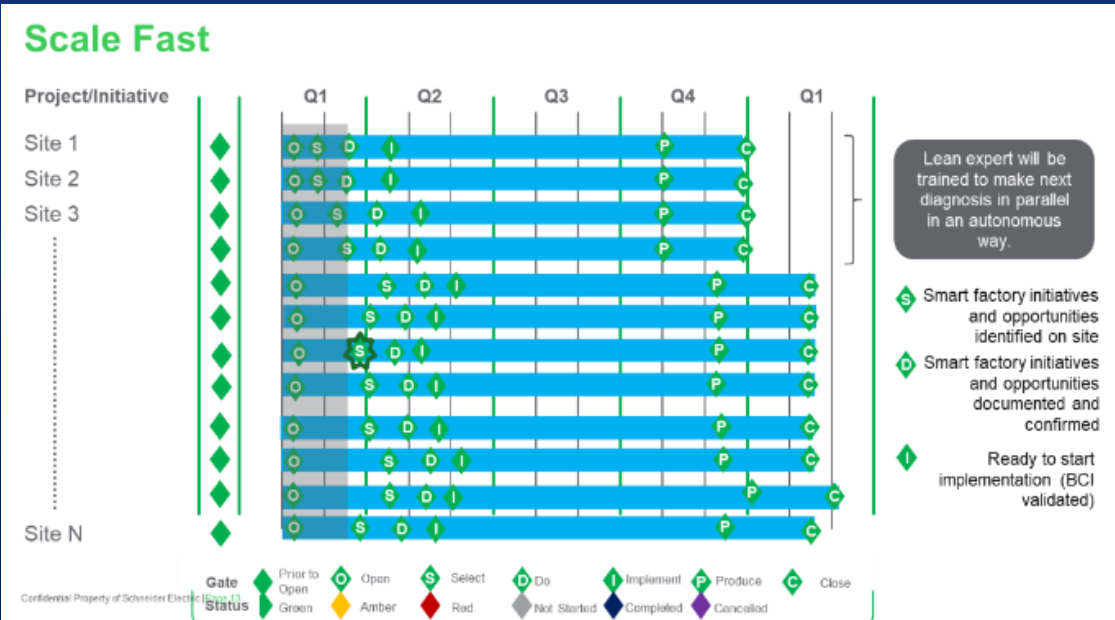## A defined process
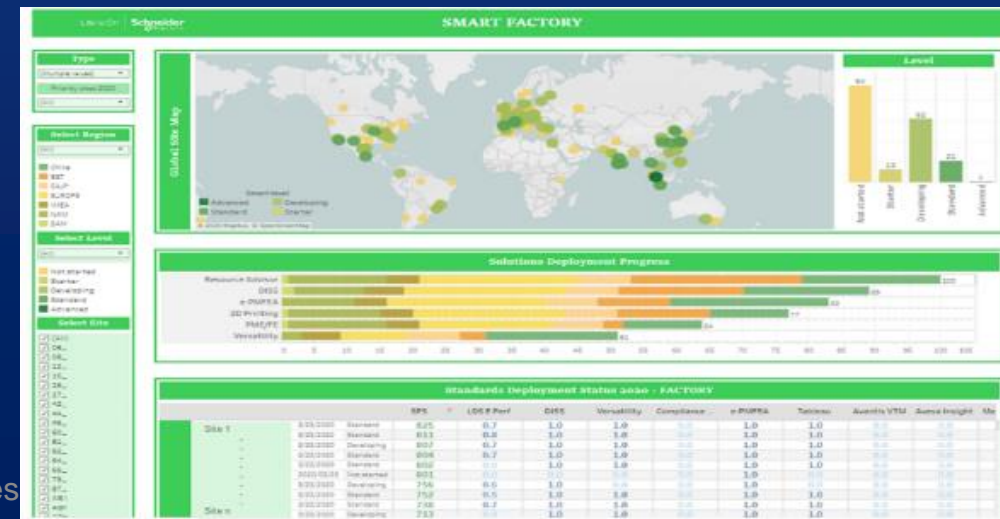

A solution catalog

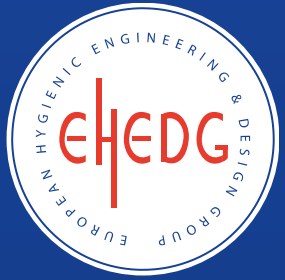## A factory ranking

Project overview per factory

Result tracking per factory / regions

... and don't forget the people and the right organi-zation!

Thank you for your attention!

EHEDG
EUROPEAN HYGIENIC ENGINEERING & DESIGN GROUP

Our Purpose:

Empower all to make the most of our energy and resources bridging progress and sustainability. We call this Life is On.

Our Mission:

Be your digital partner for Sustainability and Efficiency

Our Vision:

Improve flexibility, traceability and sustainability of your operations across the whole supply chain.

Life Is On | Schneider Electric