



BEL OPERATION

Leveraging Operation Excellence Model
for Higher Value Creation

DIGITAL TRANSFORMATION

Yannick STEUNOU

Chief Digital Excellence Operation

EUROPEAN FOOD MANUFACTURING SUMMIT

Dusseldorf June 2025



Agenda



01

**BEL Group
Introduction**

02

**BMM
Bel Manufacturing Model**

03

**From Lean Manufacturing to
Digital Excellence**

04

**Moving to
Intelligent Factory**

05

Q and A



01

BEL GROUP

Introduction

BEL Group in a Nutshell....



One Ambition: Becoming a worldwide Leader in Healthy snacks



DAIRY PRODUCTS

FRUIT PRODUCTS

PLANT-BASED PRODUCTS



Our historic territory, constantly innovating to adapt recipes and formats

Major diversification, with the acquisition of MOM

A strategic turning point, essential in the face of consumer expectations and socio-environmental challenges



digit ops



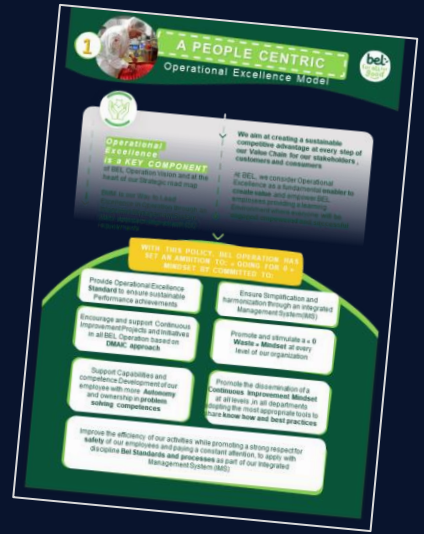
02

BEL
MANUFACTURING
MODEL

Few words of History: BMM has started in 2017 Starting with a Pre Requisite..... Building Standards



BMM: A Global Lean Manufacturing Program@ BEL



A 2 level Model securing robust foundations with factory Audits



LEVEL 2



**BMM
ADVANCED**



« The WAY To Manufacturing Excellence »

LEVEL 1



**BMM
FOUNDAMENTALS**



1 « The WAY We Operate »



2 « The WAY We drive and lead performance »



Platform BIC Repository

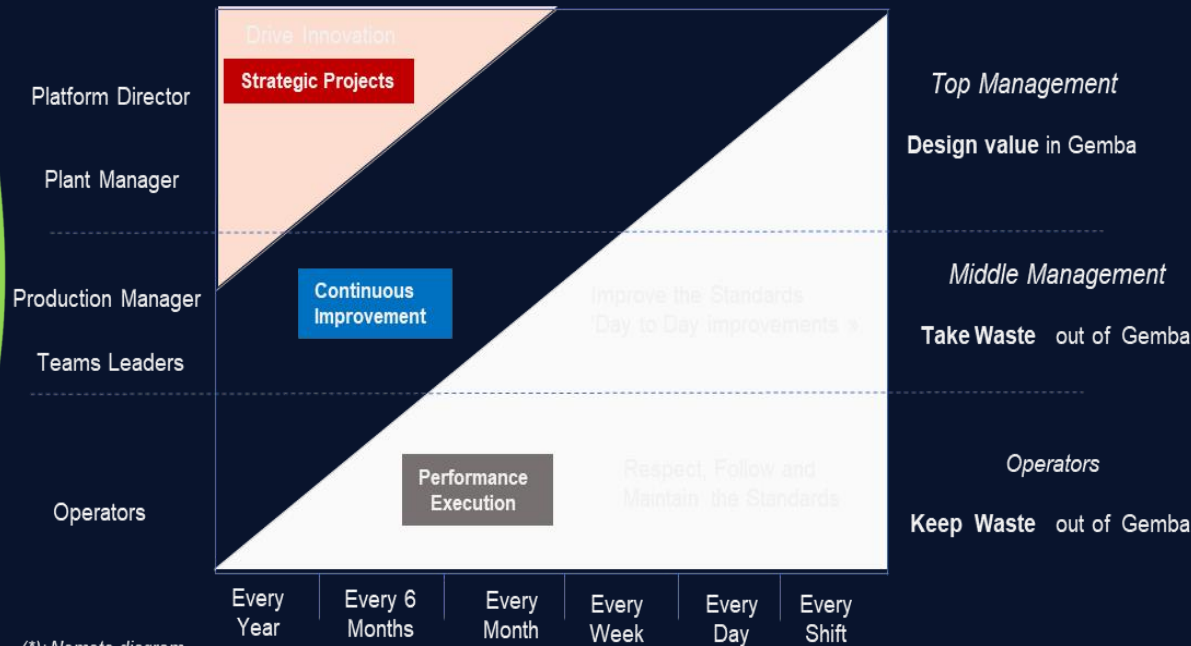
3 « The WAY We leverage Expertise and Best Practises »



Connecting Standards and Best Practises with Performance Achievements

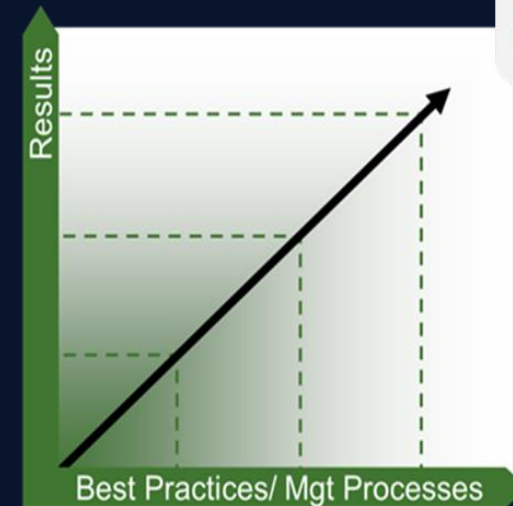


Role and Responsibilities (*)



(*): Nemoto diagram

Gemba: Place where value is created



03

FROM LEAN MANUFACTURING TO DIGITAL EXCELLENCE

External Insight From Mc Kinsey



We surveyed >1.000 senior executives from all core industries and major regions highlighting global trends around 3 dimensions ...

Productivity targets
 45% of companies target >3% p.a. increase in labor productivity
 60% believe R&D and innovation will improve productivity more than cost cutting
 70% define digitization, artificial intelligence and automation as top 3 productivity lever

Investment levels
 57% will increase their CAPEX budget after COVID

McKinsey & Company 4

Digitization

Digital investments were done as planned during the last 12 months and even exceeded original plans across most industries.
 Most SC leaders invested in digital solutions for better E2E SC visibility and performance management.

Digitization approach differs by industry
 % of respondents

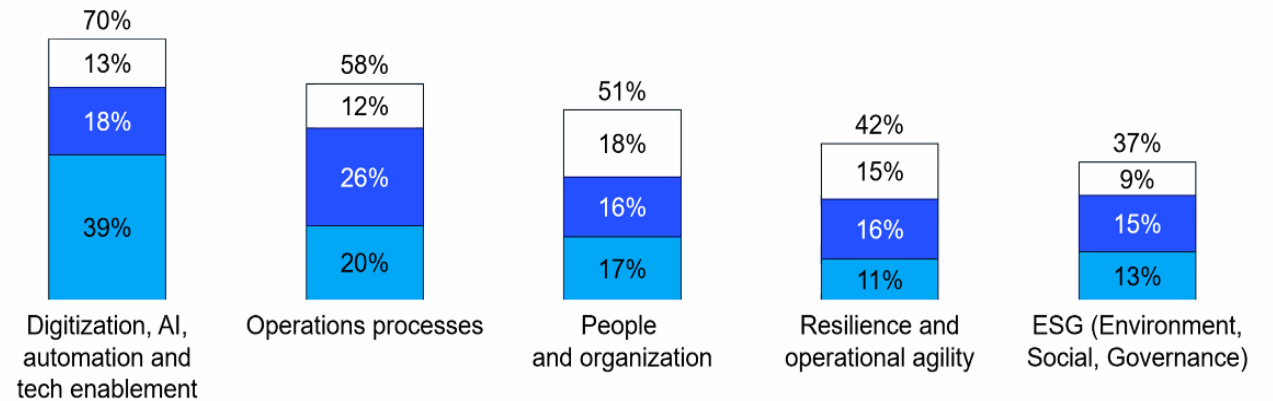
- 85% of consumer companies that are already digital are still planning to invest more
- 67% of automotive companies plan to increase investments into digital technologies
- 50% of commodity companies that already invested significantly last year will continue to do so
- 20% of chemical companies with extra investments last year plan to increase digital spend

Source: McKinsey survey of global Supply Chain leaders May 4 - June 16, 2021. McKinsey & Company 10

Top productivity drivers for companies across all industries are “Digitization / Artificial Intelligence”, “Operations processes”, “People & Organization”

Productivity drivers that will affect profitability the most by 2024
 % of companies selected driver as top 3 priorities

Ranked 1st Ranked 2nd Ranked 3rd



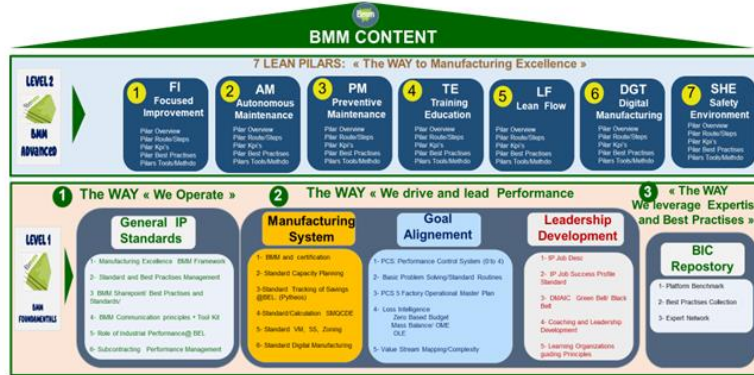
Source: Q5-Which of the following productivity drivers do you believe will most positively affect your company's or business line's profitability in the next 3 years?

McKinsey & Company 5



We have connected our Manufacturing Excellence Program to Digital improving our Maturity with external Benchmarks

DIGITAL IS FULLY PART OF OUR OPERATION EXCELLENCE MODEL (BMM ADVANCED)



Starting to build standards and measuring Our Digital Maturity



SHARING EXTENSIVELY WITH EXTERNAL COMPANIES AND PARTNERS

External Events, Learning Expéditions, Factory tours External Benchmarks, Digital Calls

CONSULTING



CPG



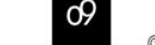
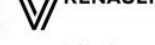
FOOD AND BEV



INDUSTRY AUTOMOTIVE



EDITORS



Connecting Lean and Digital: BMM standards must be implemented before going to Digital: “Digital Ready”

No digitalization without **standardization/SIMPLIFICATION**

« All starts from shopfloor »

Manufacturing Excellence Philosophy

OUR CONNECTIONS !

1- Everything starts from Shopfloor where problems are known
2- Performance is made on shopfloor by operators

WHY?
The Iceberg of Ignorance Concept

Key Learnings

- 1- Operator involvement: Operators are the eyes and ears of the shopfloor
- 2- Middle Management is out of the shopfloor
- 3- Continuous Improvement is a shopfloor activity

« Middle Mangement is the transmission belt »

Manufacturing Excellence Philosophy

OUR CONNECTIONS !

Middle Management is out « transmission belt » to build a culture of Continuous Improvement on shopfloor

Shopfloor = 50%

- Plant Management: Make Quality Visible on the shopfloor
- Shopfloor Management: Problem Solving
- Operators: Create Value/Production

MANUFACTURING EXCELLENCE

« Being Excellent in standard routines »

Manufacturing Excellence Philosophy

OUR CONNECTIONS !

Being « Excellent » every day in execution of our foundations.

PERFORMANCE

PROBLEM SOLVING

Bmm

LEARNING BEHAVIOURS ATTITUDES

VISION MANAGEMENT ZONING

« Exc = Operators Involvement X IP Standard »

Manufacturing Excellence Philosophy

OUR CONNECTIONS !

Building Standards: A Prerequisite to Manufacturing Excellence

MANUFACTURING EXCELLENCE **OPERATORS INVOLVEMENTS** **STANDARDS**

Exc = Operators Involvement X IP Standard

Lean / CI Maturity/ BMM Fundamentals



Digitalization

o Digital in Manufacturing is a Performance acceleration enabler and will ensure that BMM will achieve its full potential: We don't digitalize the complexity, we need to standardize and simplify first

Our digital Model is fully connected to Lean Manufacturing (BMM) with 4 pilars part of our factory of the future

OPERATION EXCELLENCE MODEL



We are connecting our Digital Strategy with our Manufacturing Excellence standards

We have prioritized investments on shopfloor where the performance is made

4 Digital Manufacturing pilars

Digital Workforce
Connected Operator



Intelligent Manufacturing
Datass Analytics



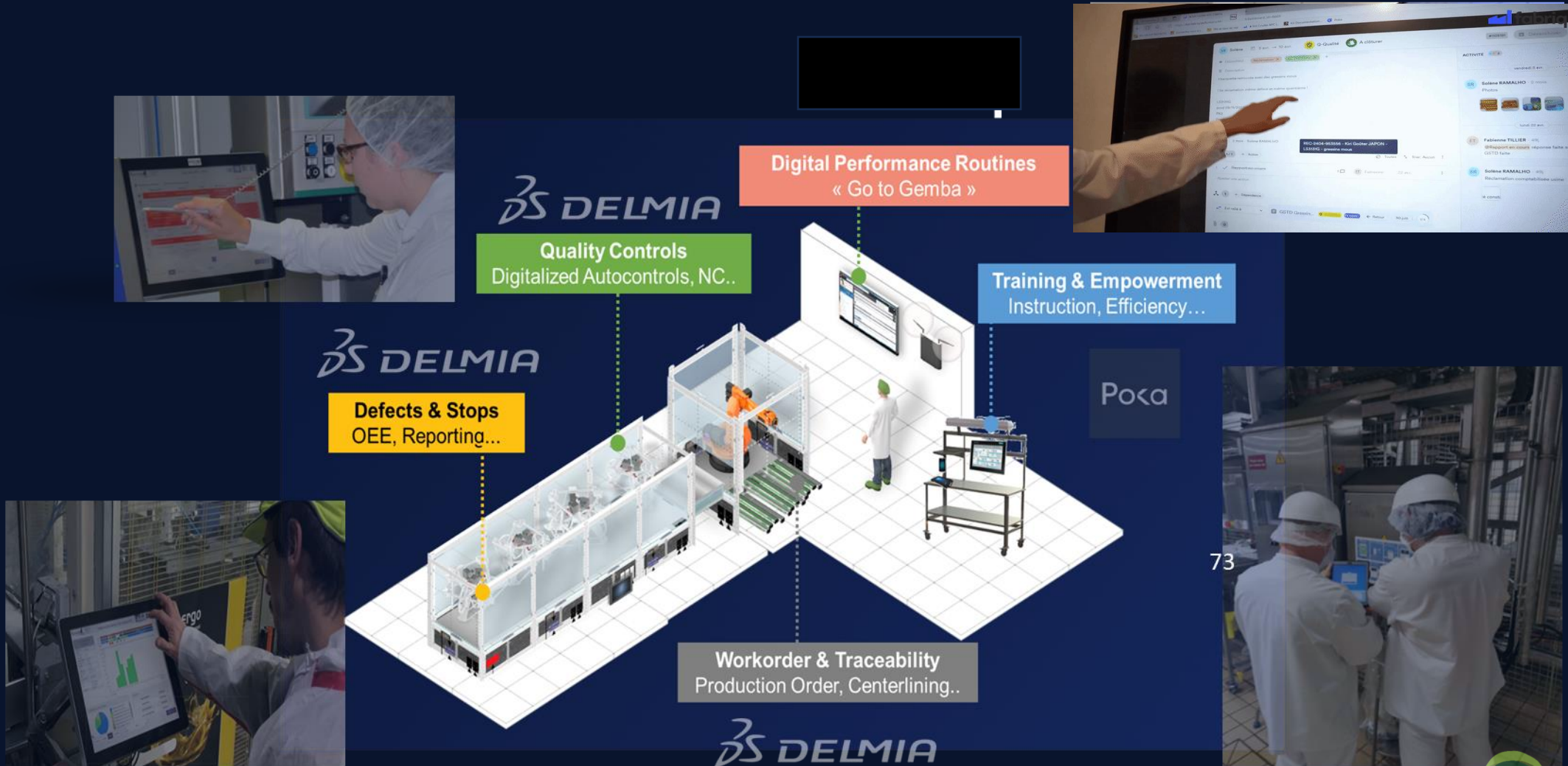
Automatized Tasks
RPA and NVA out



Flows Simplification
Digital Flexibility



A people centric digital Manufacturing Core Model



Making Sure we identify Business case that create value and can be scaled

« DIGITAL Lean »

User Case Defined: POC Started

- Lean Standard Routine:
- Digital Training/ Knowledge Management

KPI's: OEE- Lean Kpi's
TrainingHours reductopn



COBOT « STRATEGY »



Business Case Built (Low Cost Labor country: Asia, Middle East and Africa)
CAPEX approved

We aligned on 4 « Strategic » Corporate Digital Streams with 1 project/stream
To be evaluated: Value creation/ROI

Digital Workforce Connected Operator



Intelligent Manufacturing Data Analytics



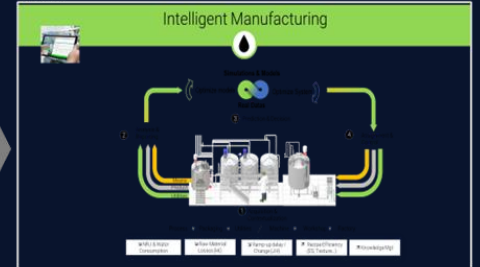
Automatized Tasks and RPA
NVA: Non Added Value Out



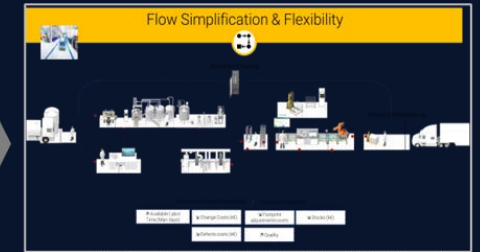
Flows Simplification
Digital Flexibility

PRIORITY N°1: MES

« Data Value Acceleration plan to « 0 Waste
KPI's Line OEE; QA Controls/Tracability and Waste



AGV « STRATEGY »



Business Case built (Big Factories: USA; Europe)
CAPEX approved

2023 IMPROVING CAPACITY UTILIZATION WITH SMED



“ G17 PILOT DIGITAL SMED LINE BOUE FACTORY”



chgt de bobine scé initial
 Préparer > Analyser > Valider > Publier
 Décomposition Construction Comparaison Synthèse

Administration Aide à la pros. Administration Se déconnecter

Scénario de validation

Voir par: [dropdown]

ID	Tâche	Durée	Fréquentiel	Catégorie	Ressource
1	arrêt VP	00:00:04.0	1/1	Process manuel	OP1
2	déplacement vers pup	00:00:06.2	1/1	Déplacement	OP1
3	changement de mode	00:00:05.6	1/1	Process auto	OP1
4	déplacement vers dév	00:00:04.8	1/1	Déplacement	OP1
5	coupe de l'ancien film	00:00:04.0	1/1	Process manuel	OP1
6	enlever l'ancien film	00:00:11.8	1/1	Déplacement	OP1
7	amener la nouvelle bob	00:00:03.6	1/1	Déplacement	OP1
8	gonfler le mandrin	00:00:04.6	1/1	Process manuel	OP1
9	insérer la bobine	00:00:09.6	1/1	Process manuel	OP1
10	chercher le raccord	00:00:02.8	1/1	Contrôle	OP1
11	reconnecter l'ancien et le	00:00:34.3	1/1	Process manuel	OP1
12	verrouiller le mandrin	00:00:04.4	1/1	Process manuel	OP1
13	arrêter le mode chang	00:00:07.4	1/1	Process manuel	OP1
14	déplacement vers pup	00:00:04.6	1/1	Déplacement	OP1
15	passage en mode proc	00:00:15.8	1/1	Process auto	OP1

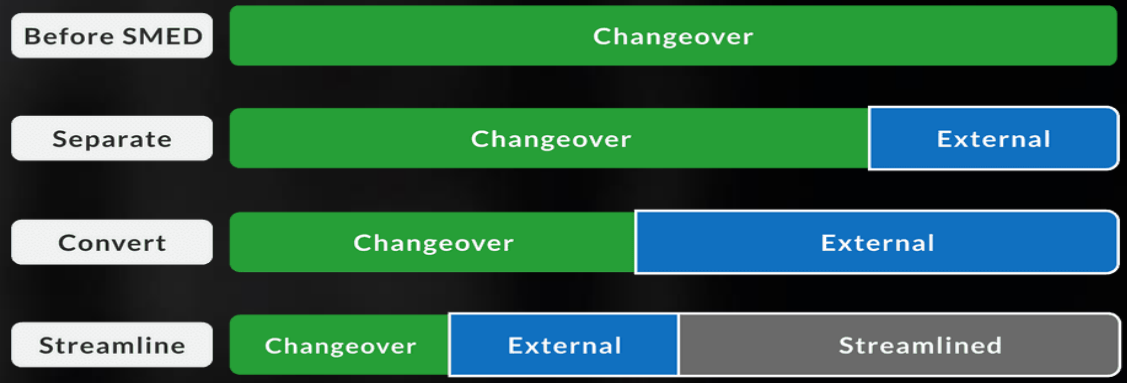
Appuyer sur le bouton "arrêt" dans la zone dérouleur

00:00:00.0 00:03:03.4

ID 11 Tâche déplacement vers pupitre Ressource OP1
 Début 00:01:46.5 Fin 00:01:50.9 Durée 00:00:04.4
 Catégorie Déplacement

Remarques

Outils	EPI	Lieu	Consommables	Risques
tournevis (Nouveau)	casque (Nouveau)	chaise de pl... (Nouveau)	Gants (Nouveau)	
				Braiture (Nouveau)
				Chute (Nouveau)
				Placement (Nouveau)



chgt de bobine scé initial
 Préparer > Analyser > Valider > Publier
 Décomposition Construction Comparaison Synthèse

Administration Aide à la pros. Administration Se déconnecter

Scénario de validation

Global Par Opérateur Par Equipement

Opérateur : Tous

Equipement : Tous

Scénario	Total	Prépare	Process manuel	Process auto	Process manuel	Process auto	Process manuel	Process auto
Scénario initial	00:00:00.0	00:00:00.0	00:00:00.0	00:00:00.0	00:00:00.0	00:00:00.0	00:00:00.0	00:00:00.0
Scénario cible 1	00:00:00.0	00:00:00.0	00:00:00.0	00:00:00.0	00:00:00.0	00:00:00.0	00:00:00.0	00:00:00.0
Scénario de validation	00:00:00.0	00:00:00.0	00:00:00.0	00:00:00.0	00:00:00.0	00:00:00.0	00:00:00.0	00:00:00.0



04

FACTORY OF THE FUTURE
The way Foward

Technologies are setting new boundaries moving to intelligent factories in Food and Beverage Industry



HYPER CONNECTIVITY

Connected products

Advanced Connectivity

Next Gen Networks



HYPER INTELLIGENCE

New AI & Gen AI wave

Autonomous Systems

Modeling & Simulation

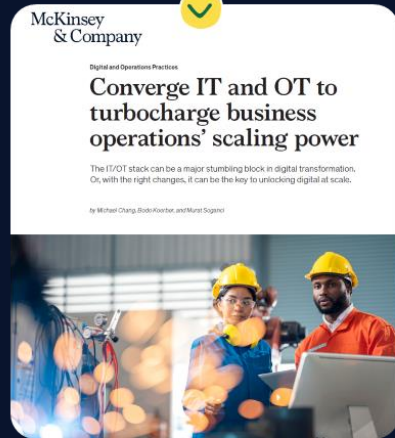


Building the factory of the future is a long term transformation requesting to be excellent in pre requisites

14



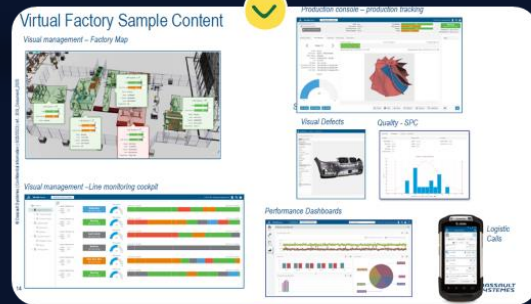
Digitization
is transforming WOW
between OT and IS/IT



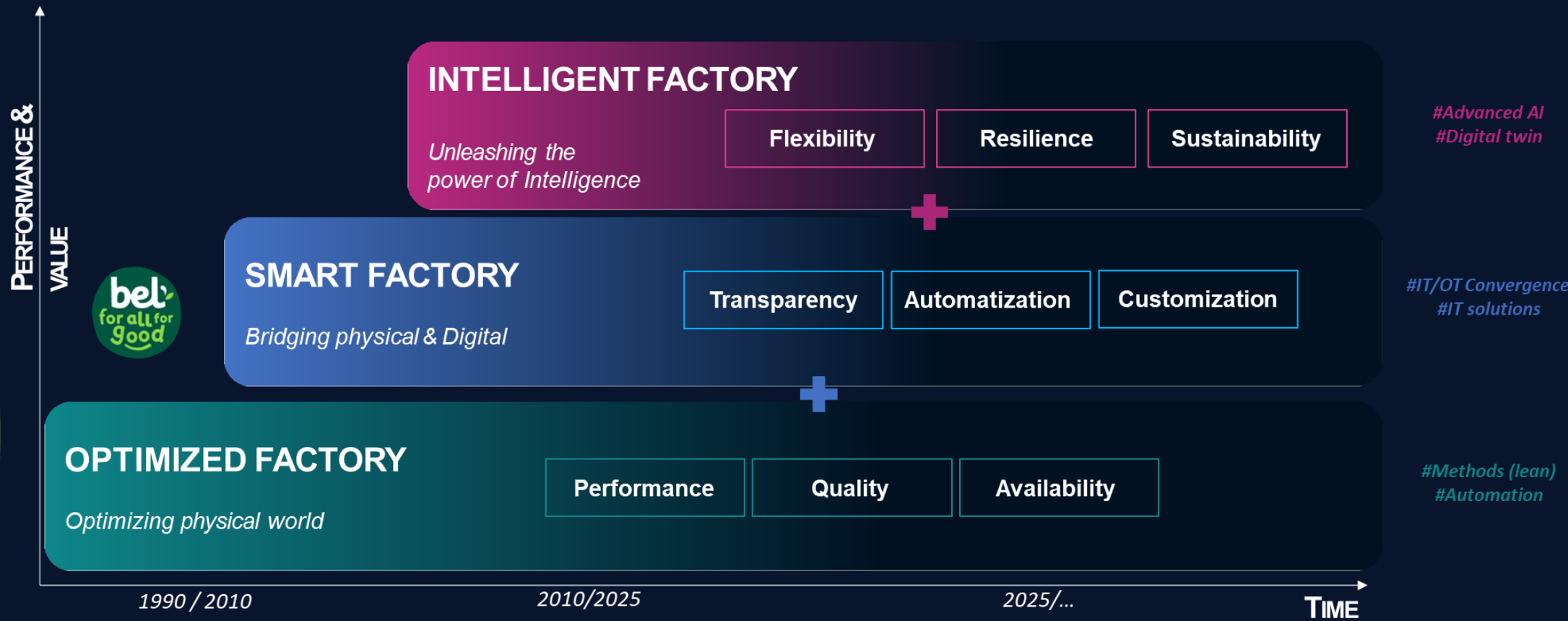
Data Leadership
Core foundation.
All starts with Datas



Digitization without
Simplifying, standardizing
And building Robust core Model



Factory of the future long term target:Moving to Intelligent Factory

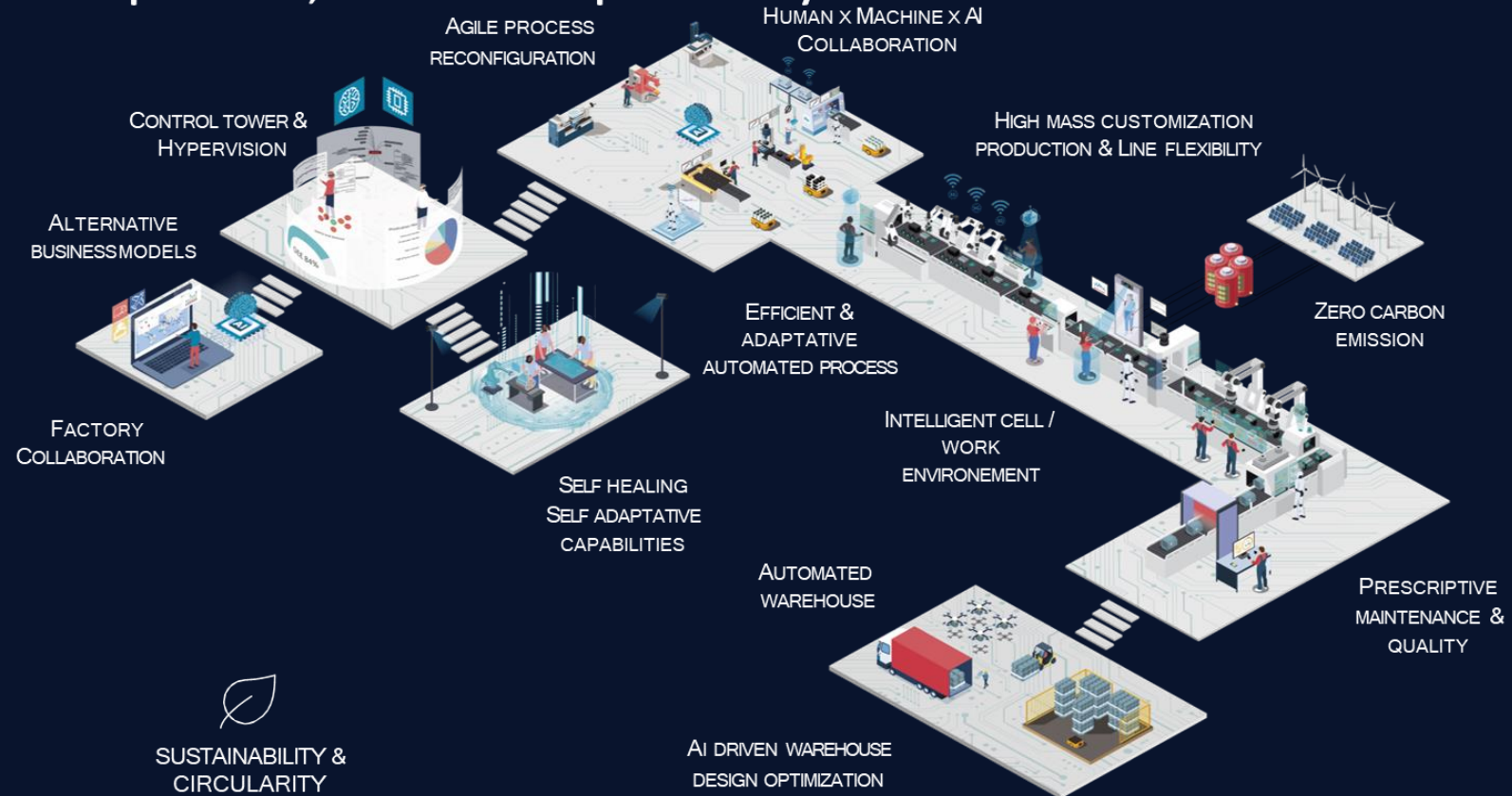


Digital potential to build the factory of the future is huge....

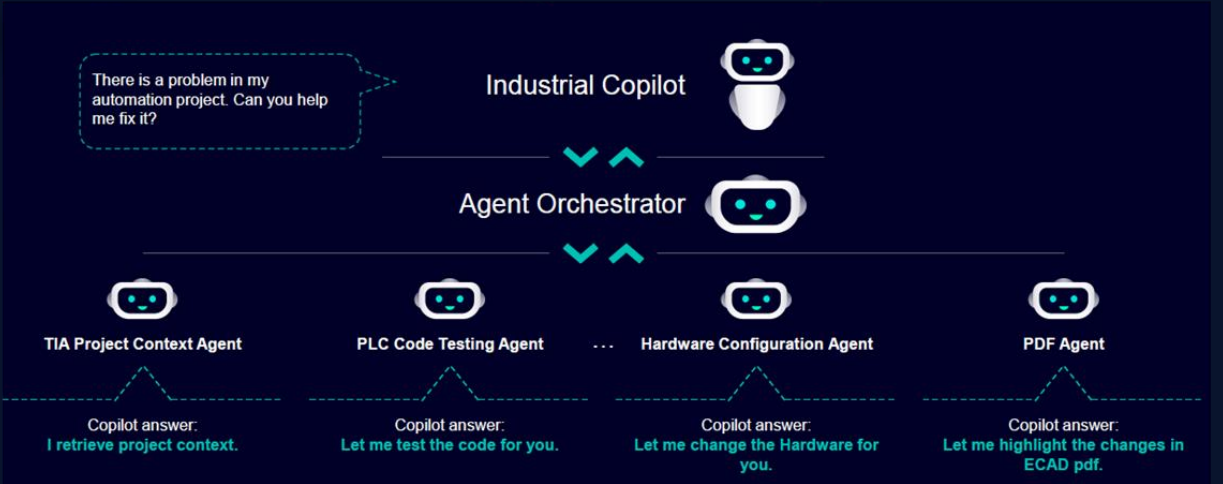
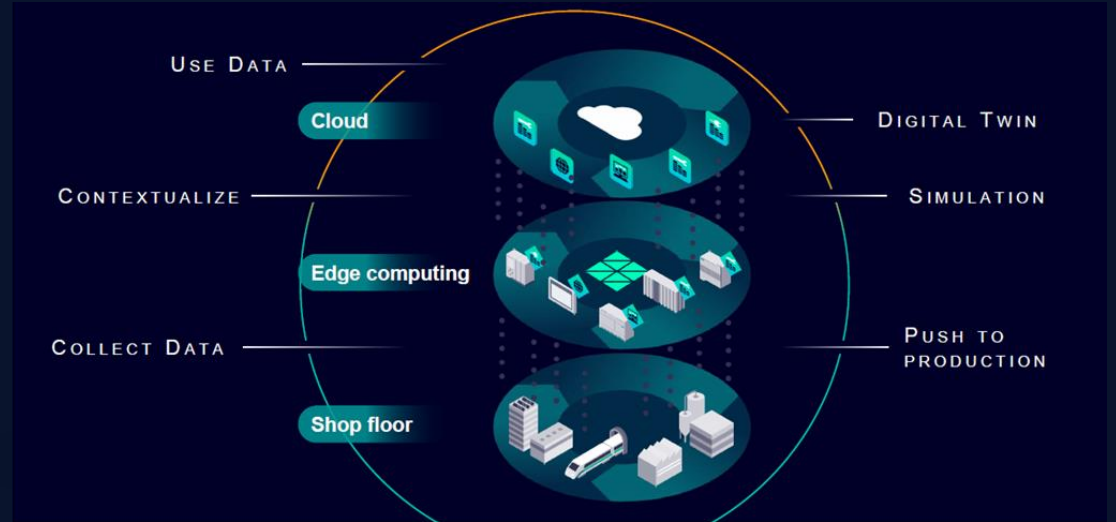
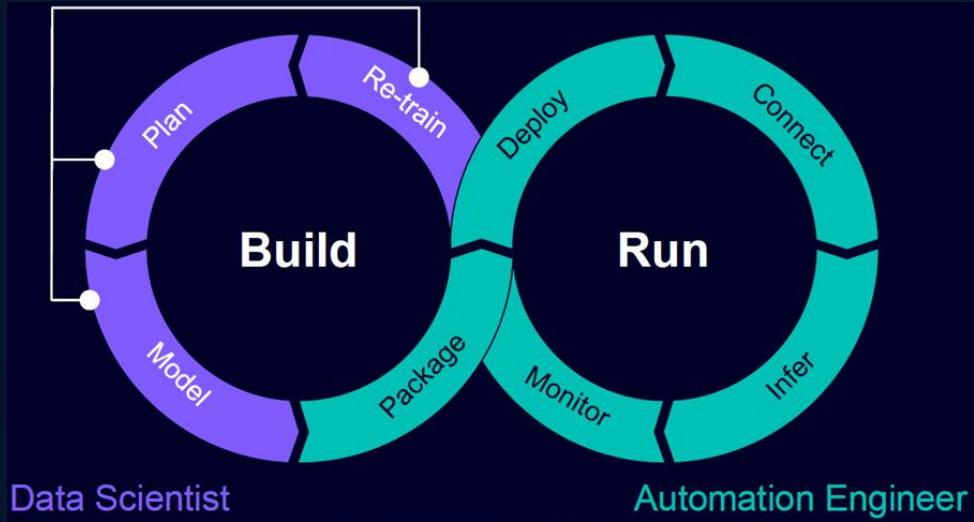


INTELLIGENT FACTORY business cases offer considerable earnings potential Process acceleration, task simplification, and workforce productivity evolution.

10%-30%	OEE increase
10%-20%	Supplier services increase
+20%	Takt time
10%-30%	Inventory decrease
30-40%	Labor productivity increase
30-40%	Lead time decrease
+35%	Quality increase
40%	Time to market decrease
NetZero, water consumption, scrap reduction trajectory acceleration	
Intelligent factory attractivity improvement / Attrition reduction	



From Gen AI to AI Agents to automatize processes and decision making



The biggest Challenge to succeed in Digital Transformation is not the Technology but the People

70%

of manufacturing companies expect that digital access broadening will transform their business by 2030, and have a massive impact on future skills required

TOP 3 FASTEST-GROWING SKILLS BY 2030



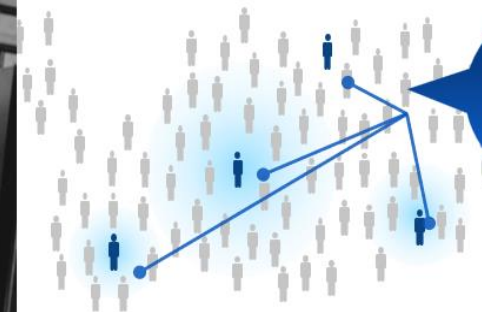
#Data and AI

#Networks and cybersecurity

#Technological literacy



As Bel is already on the right track in terms of technology building blocks, the major challenge a had to make this transformation a successful is **HUMAN**



People at all levels across the organization are needed to make your transformation successful

1

2

3

Assessing potential skills gaps and opportunities to secure new specific skills

Developing a skills strategy to ensure we are future-ready

Reimagining resources for skilling at scale through tailored learning journeys

05
Q and A



THANK YOU