Digital Transformation

From Bumper Cars to Formula 1 Racing

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2023 | Driving change for generations

Anne Sofie Weekes Hald and her daughter
Anne Sofie is living with type 1 diabetes

Our purpose

Driving change to defeat serious chronic diseases

Moustapha Djamil Cisse
Moustapha has type 1 diabetes and lives in Senegal

Novo Nordisk at a **glance**

Novo Nordisk is a leading global healthcare company, founded in 1923 and headquartered in Denmark.

Our purpose is to drive change to defeat serious chronic diseases such as diabetes, obesity and rare blood and endocrine disorders.

We do so by pioneering scientific breakthroughs, expanding access to our medicines and working to prevent and ultimately cure disease.

1. https://companiesmarketcap.com/pharmaceuticals/largest-pharmaceutical-companies-by-market-cap/ (As of 5 January 2023).

Supplier of nearly
50%
of the world's insulin

Total net sales
177
billion DKK

Affiliates in
80
countries

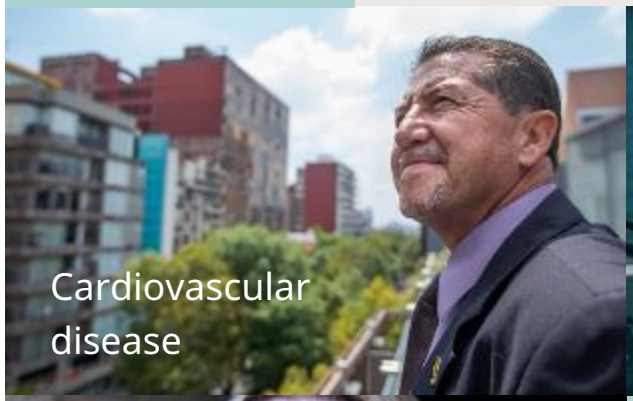
1923
Driving change for generations

Globally, we are serving over
40
million patients

R&D centres in China, Denmark, India, UK and US

Strategic production sites in Denmark, Brazil, China, France and US

Around
59,000
employees



A top five
pharma company measured by market value[1]

Product Supply, Quality & IT

PURPOSE

is a modern technology organisation that proactively drives the purpose of Novo Nordisk and delivers the highest quality to patients in a sustainable and efficient way

SUSTAINABLE

MODERN TECHNOLOGY

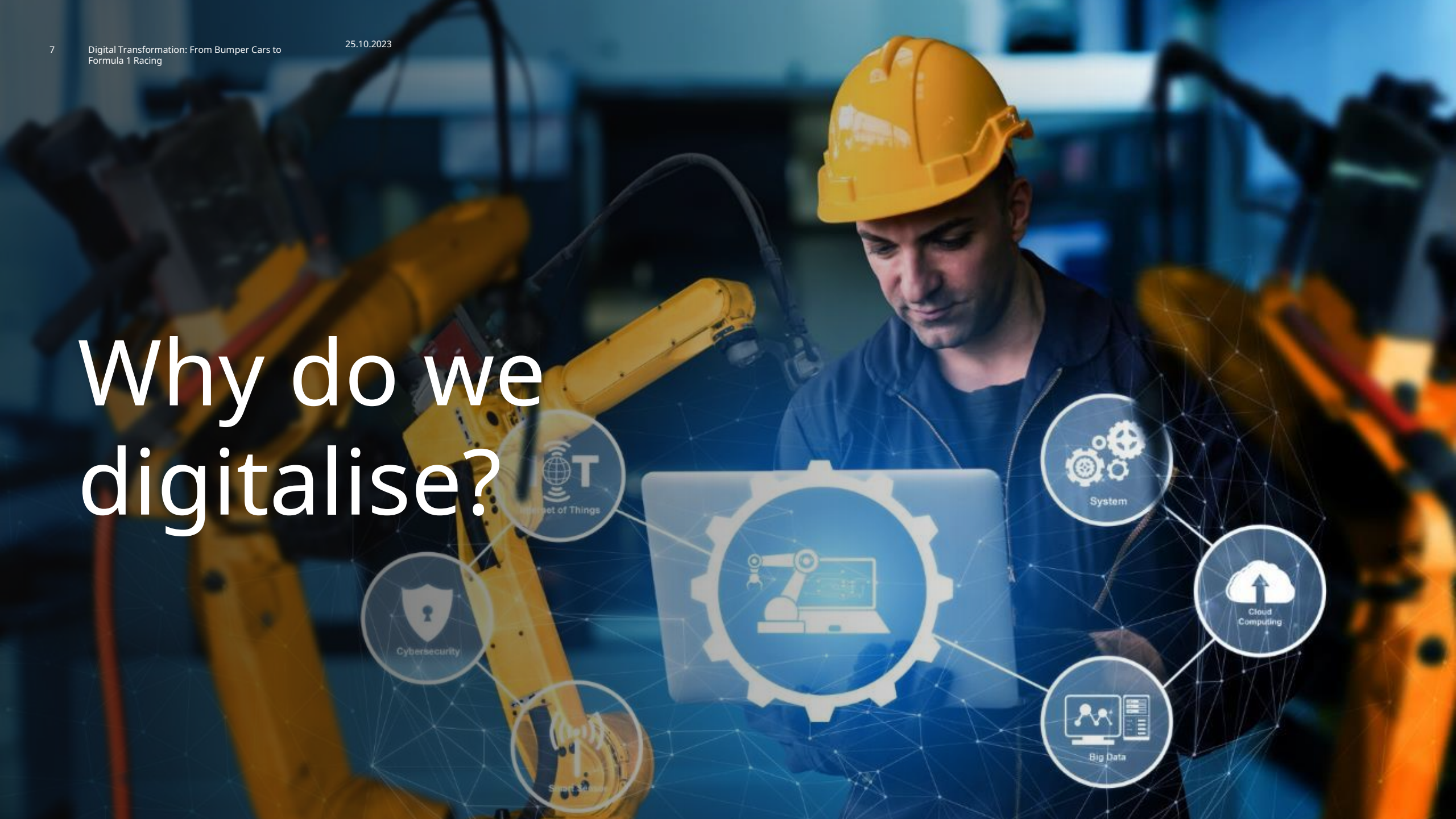
PROACTIVE

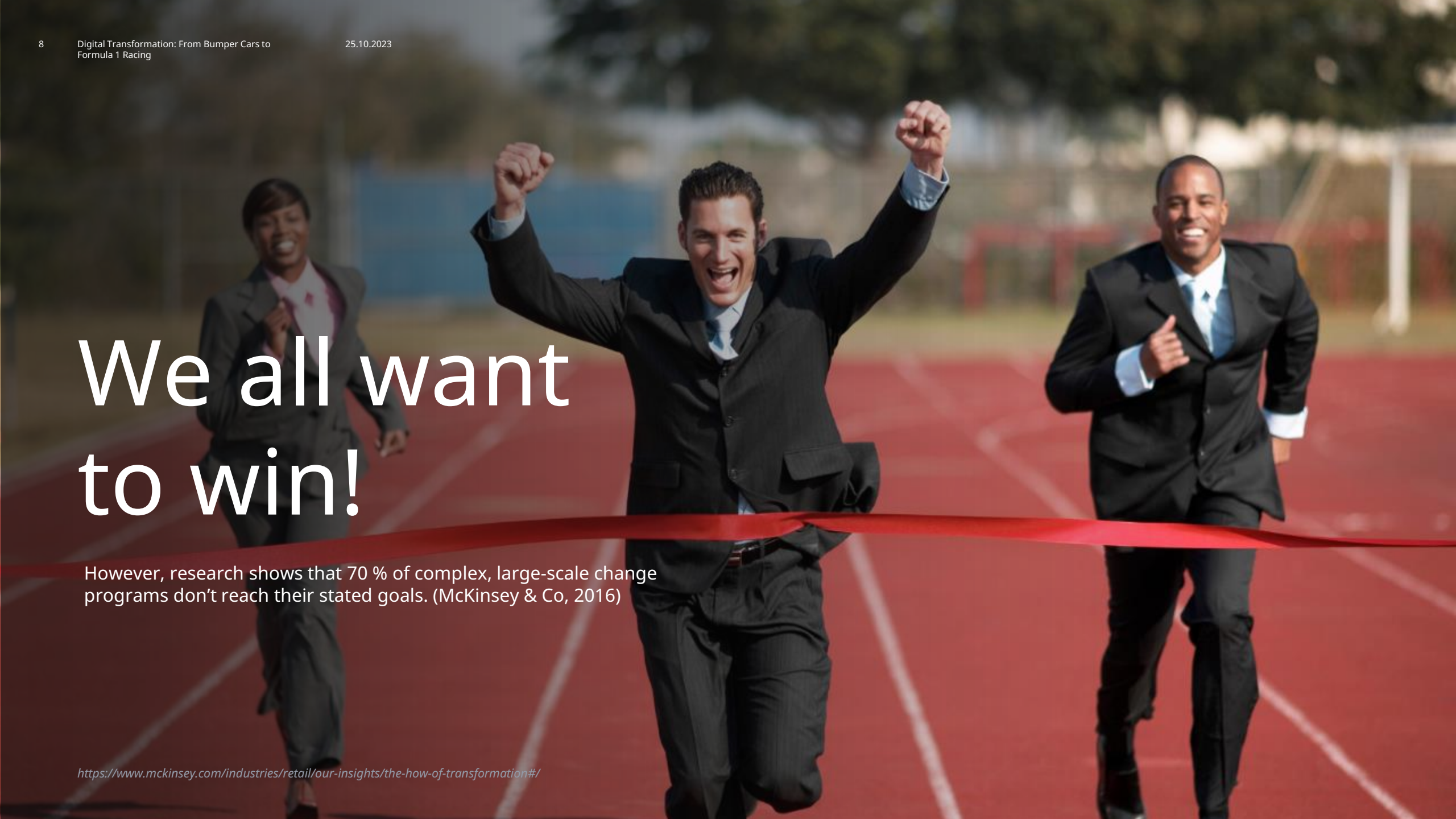
novo nordisk

MODERN TECHNOLOGY

- We want to be at the forefront of technology within manufacturing and IT operations
- We aim at continuous, automated and closed production processes
- Our products can be instantly released by real-time quality control and assurance
- We enable the digitalisation of the Novo Nordisk value chain

Why do we digitalise?





We all want to win!

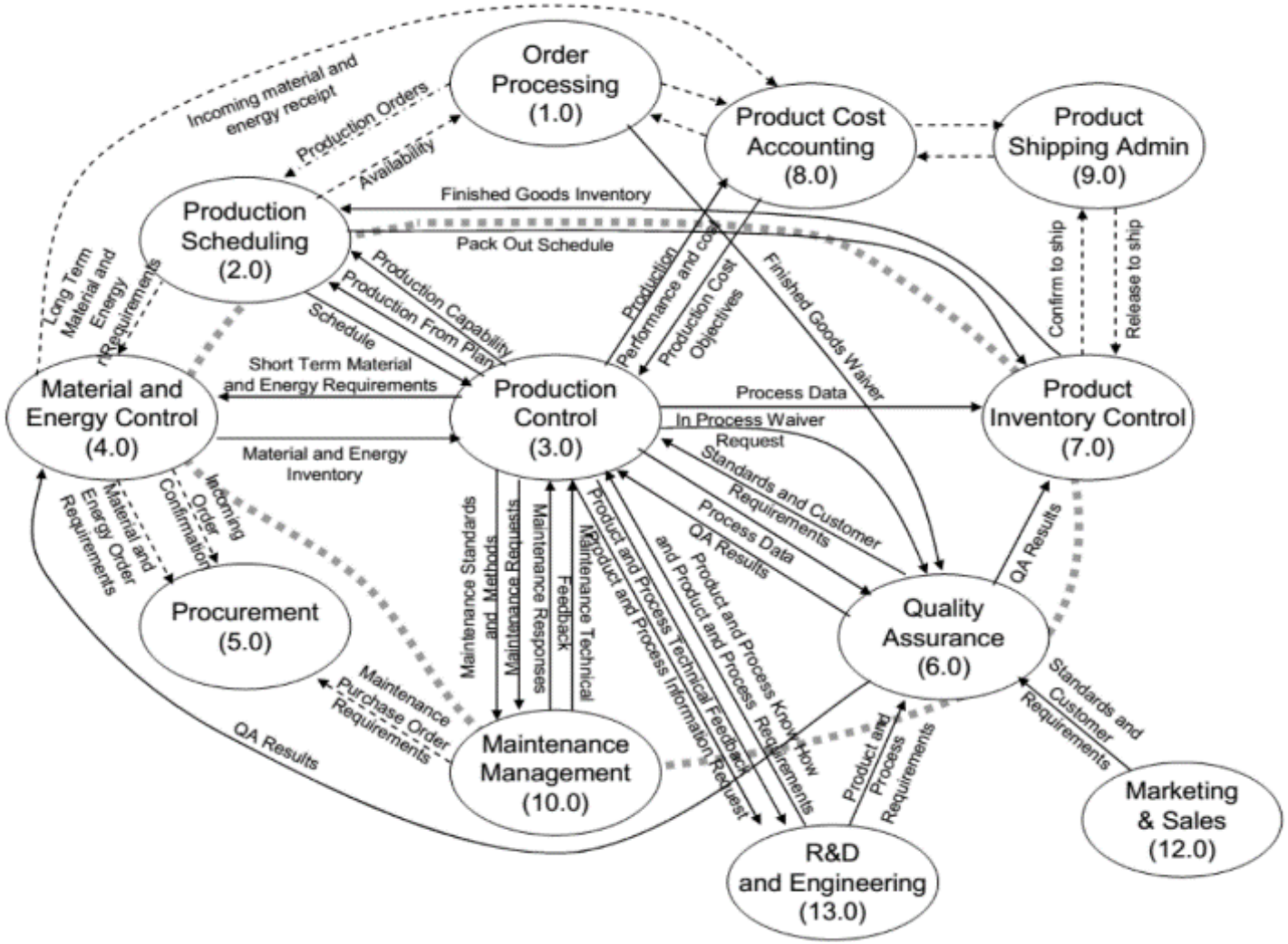
However, research shows that 70 % of complex, large-scale change programs don’t reach their stated goals. (McKinsey & Co, 2016)

https://www.mckinsey.com/industries/retail/our-insights/the-how-of-transformation#/

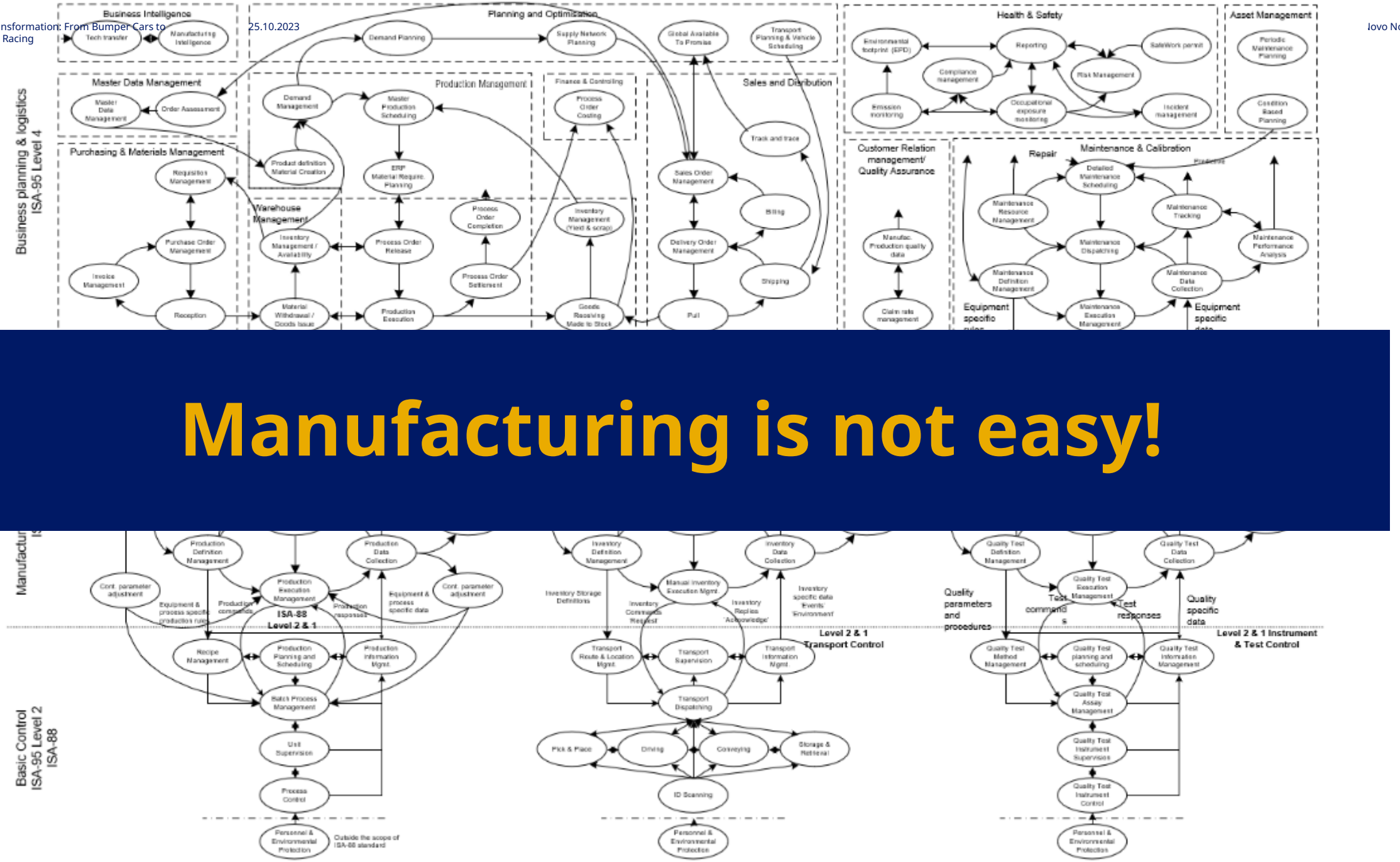
Expectations

Enterprise Functions

1. Order Processing
2. Production Scheduling
3. Production Control
4. Material & Energy Control
5. Procurement
6. Quality Assurance
7. Product Inventory Control
8. Product Cost Accounting
9. Product Shipping Admin
10. Maintenance Management
12. Marketing & Sales
13. R&D and Engineering
14. *Regulations*



ISA 95



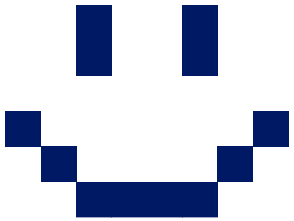
Manufacturing is not easy!

Our current situation

Large global organisation

Many different functions and processes

Resources to invest



Strategic focus on advanced technology

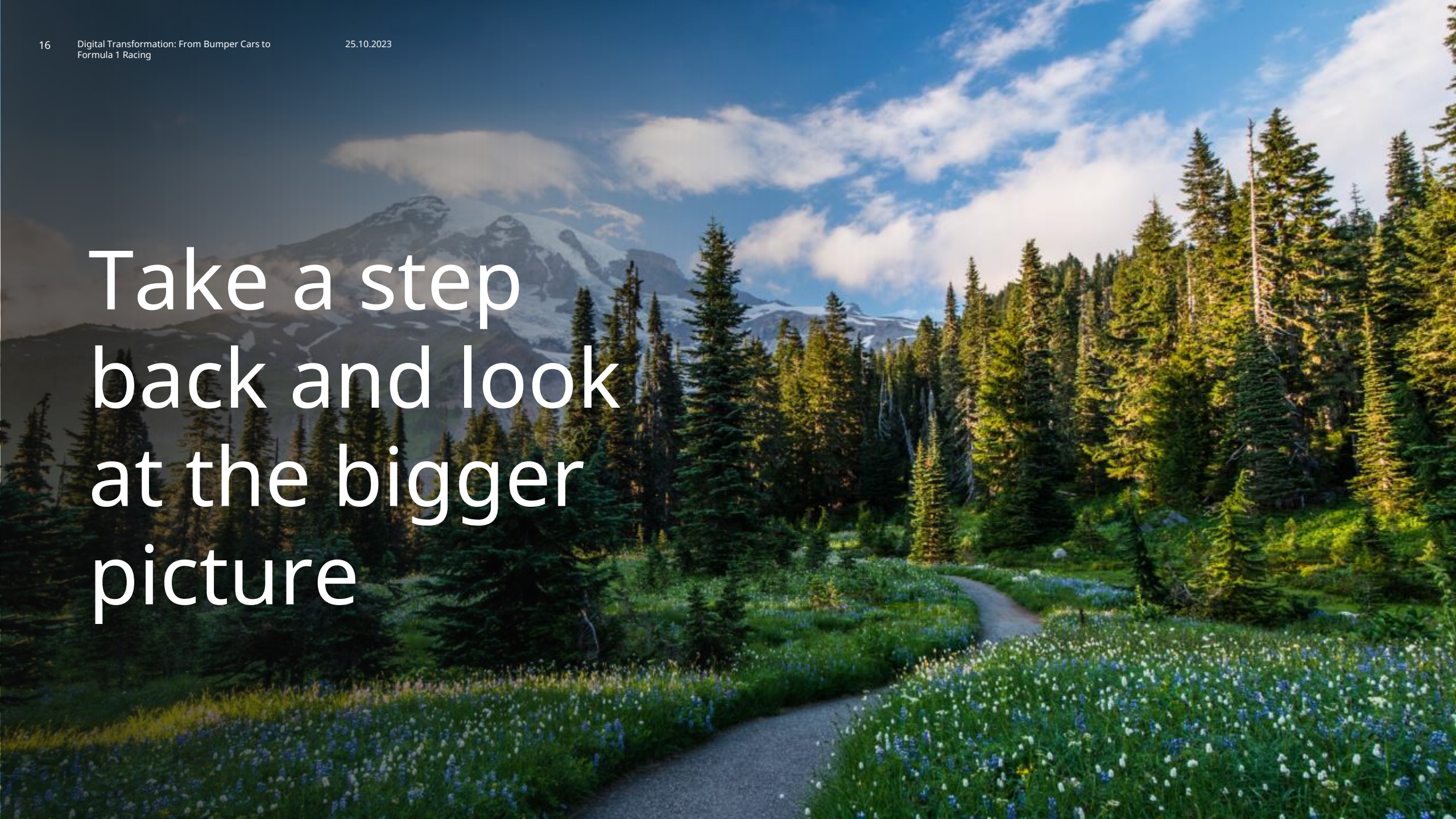
Engaged people who want to make a difference

New technology availability

Bumper Cars

The chaotic reality of digital transformation

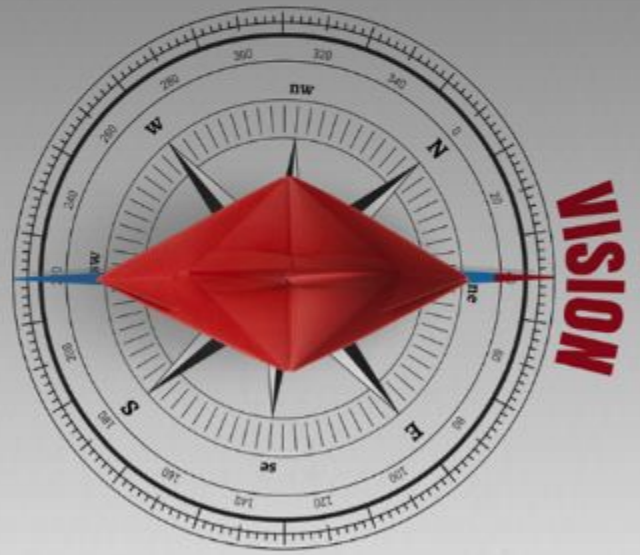
Sometimes, you need a break!



Take a step back and look at the bigger picture

Understand and clarify the overall vision and strategy for your digital transformation journey

What issues are we solving and for whom?



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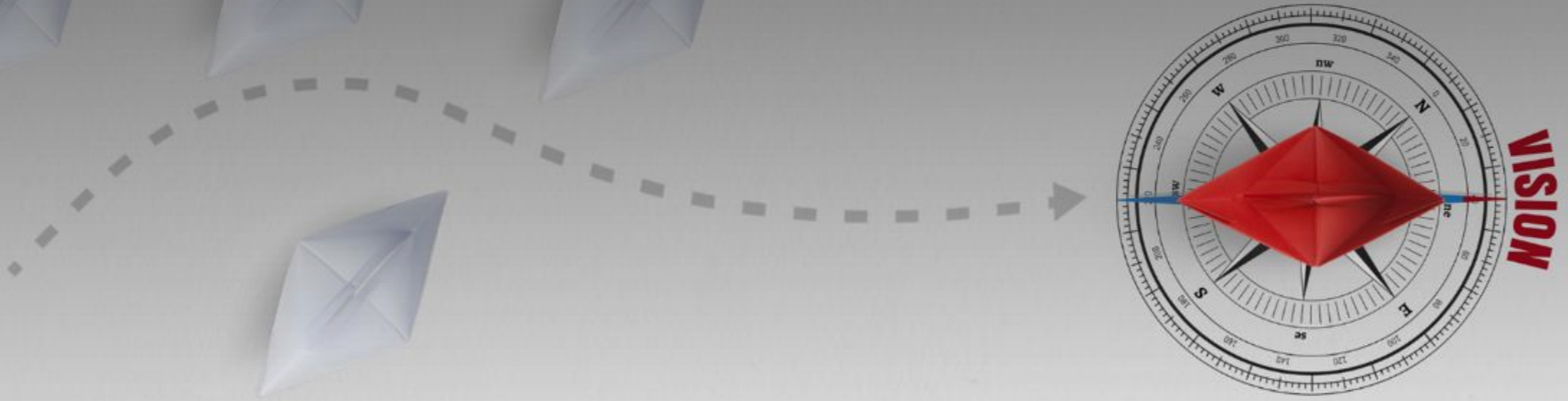
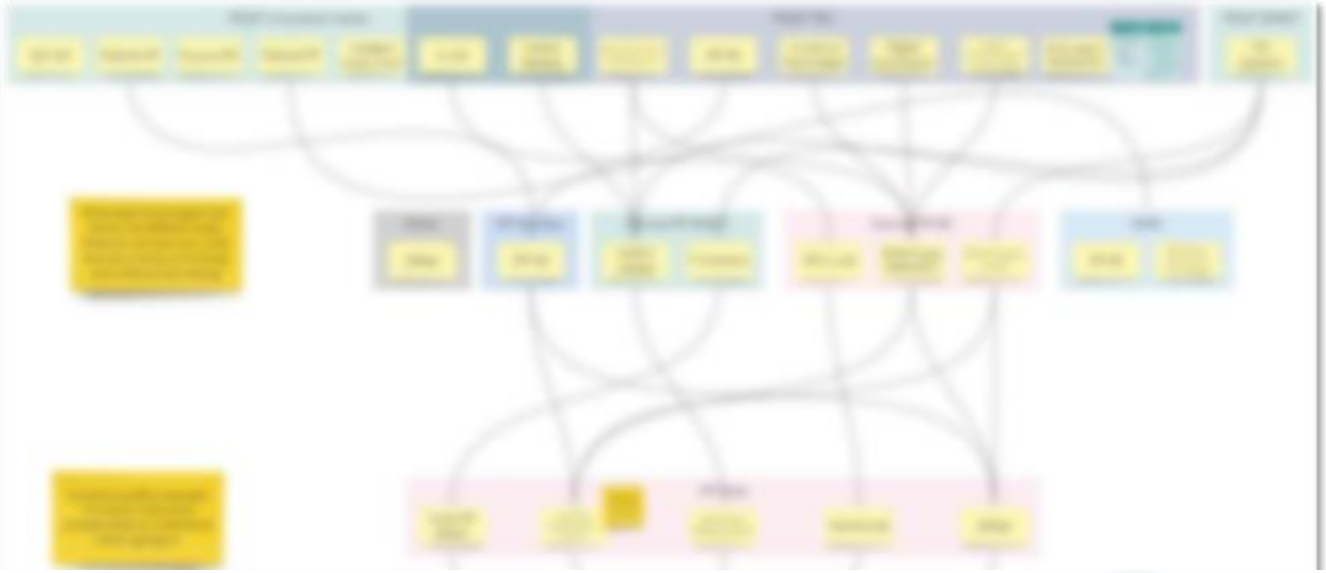


Mapping and understanding the current situation



STAKEHOLDERS

LATER
NEXT
NOW

Digitalisation Framework: Categories and Definitions

Categorising digitalisation-related activities enables a comprehensive understanding and effective division of roles and responsibilities, ensuring a successful digital transformation and continuous operations.

Running the business

IT Infrastructure Stability and Maintenance: Ensure the stability and maintenance of the IT infrastructure to support existing digital solutions.

Data and Systems Integration (Operational): Manage routine data and system integration tasks to ensure efficient data flow and use across the organisation.

Digital Compliance and Security (Operational): Maintain existing digital security measures and ensure ongoing regulatory compliance.

Developing non-GxP Digital Solutions on existing systems: Use and maintain non-GxP critical digital solutions, including BI, MI, dashboards, and other critical apps and automation solutions for decision-making and smarter working.

Data Governance (Operational): Managing and enforcing the established data governance policies and practices on a daily basis to ensure data quality, accessibility, consistency, and protection.

Digital Strategy & portfolio (Operational): Ensure the day-to-day execution of the digitalisation strategy aligns with overall business goals, coordinating and integrating digital activities across all functions and levels.

Digital Consultancy (Operational): Provide ongoing support and guidance for the operational application and improvement of digital solutions and practices, serving as a resource for digital expertise.

Changing the business

Digital Innovation: Propel the organisation forward by designing and implementing new digital solutions based on cutting-edge IT/digital platforms.

Data and Systems Integration (Transformational): Undertake significant changes to integrate new systems or overhaul data flow across the organization.

Automation: Drive efficiency and enhance capabilities by designing and implementing automation solutions in both digital and physical processes.

IT Architecture Design and Implementation: Develop and implement new IT architectures to support future digital solutions.

IT System Transformation: Overhaul existing systems to improve functionality, efficiency, and adaptability.

Digital Compliance and Security (Transformational): Implement new digital solutions for robust cybersecurity and regulatory compliance.

Developing GxP Digital Solutions: Design, implement, and validate new GxP critical digital solutions, including BI, MI, dashboards, and other critical apps and automation solutions.

Data Governance (Transformational): Designing and implementing robust data governance policies, systems, and practices to ensure high-quality, compliant, and secure data management for the organisation’s future needs.

Digital Strategy & Portfolio (Transformational): Define and communicate the overall digitalisation strategy, driving major strategic initiatives that align with the organisation's goals.

Digital Consultancy (Transformational): Advice on major digital transformation projects, helping to assess, mature, and steer the direction of bottom-up digital use cases from various lines of business.

Prioritise and **execute**!

Establishing a simple yet comprehensive PPM system and creating a single source of truth for

- Tracking the status of planned, ongoing, and completed initiatives across areas
- Resource allocation and cost estimation
- KPIs for tracking progress
- Tracking benefit realisation of completed initiatives
- Prioritising, coordinating and setting initiatives in order
- Mitigating risks and roadblocks
- Clarifying roles and responsibilities and decision-maki mandate

Co-creating with line of business and relevant stakeholders

JANNI CHRISTINA BRASK OLSEN
Device Manufacturing & Sourcing
Hillerød, Denmark

From traditional Change Management to **Human Centred Design**

Moving from bumper cars to a F1 Racing team

Thank you for Listening