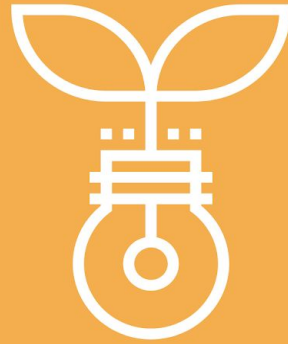


Tomorrow delivered Today

Digital people, AI technology



AI in manufacturing

Best practices

D I G I T A L S U N D A I

Content



Best AI practices in manufacturing



Introducing Digital Sundai

Acceleration of Industry 4.0

Lighthouse factories are leading the way in adoption of Fourth Industrial Revolution **technologies**

Developed a toolbox with high-impact use cases across

Product development

Customer connectivity

Supply network

Planning

Delivery

Sustainability

Work across four dimensions at once

1. Business processes
2. Management systems
3. People systems
4. IIoT and data systems

IoT

Big Data Analytics

Cloud computing

Advanced robotics

Mobile technology

Cyber security

Cognitive computing

3D printing

M2M

RFID technologies



Increased operational visibility



Reduced costs



Expedited production times



Exceptional customer support



Shifts in manufacturing & supply chain

Improved agility & customer centricity

Digital twins

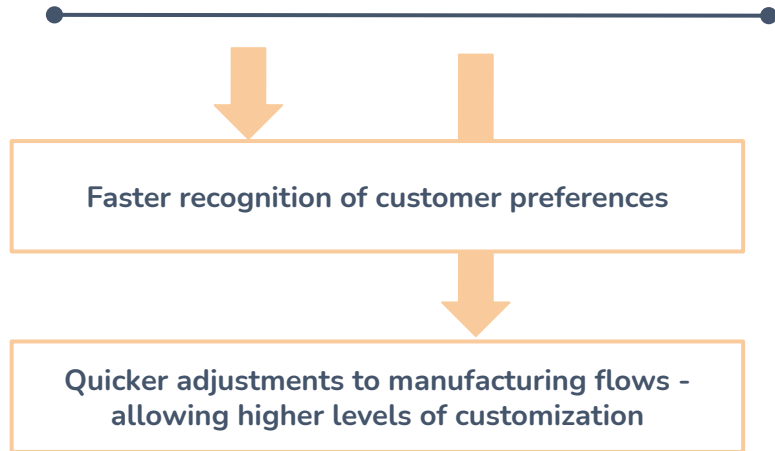


Eco-efficiency

Supply chain optimization

Improved agility & customer centricity

Across the end-to-end manufacturing & supply chain



How?

Consumer intelligence

Advanced analytics algorithms process consumer preferences gathered from various platforms across the ecosystem

Product development

- Automated development platform
- Optimized product design
- Tailored product requirements

Production stage

- Automated production configuration
- Dynamic workstation load balancing
- Online quality inspection to detect & manage issues

Digital twins

Can be a representation / blueprint of a

Component

Product

Machine

Production
process

or

Entire
physical
production
environment

Steps

1

Implement centralized data collection

2

Build digital twin through digital & AI models

3

Advise human operators on production control or use digital twin for automatic intervention



Benefits

- + Increased reliability of equipment & production lines
- + Reduced development time for new products
- + Reduced risks in various areas



Eco-efficiency

Use IoT & predictive analytics for

Sufficient energy management

a must-have in order to remain in business and ensure compliance with an increasingly complex regulatory landscape.

Cloud-based IoT



connects several manufacturing sites, while still allowing for optimized energy management at a plant level

Meters & sensors are utilized to create visualizations & descriptive analytics of granular energy consumption by machines & processes



Supply chain optimization



Build an analytics & visualization platform, available

on all devices

to all employees

all the time



Cloud-based integrated data

From multiple sources, incl. IoT sensors, commercial contracts, market prices & KPIs



Value chain optimization

Live process simulations of each production plant are used for maximized productivity



Optimized logistics

AI can also help optimize many other aspects of a manufacturing operation, such as:

- Inventory management
- Warehouse cost reduction
- Optimal routing
- Asset tracking
- Forecasting accuracy
- Transportation cost reduction

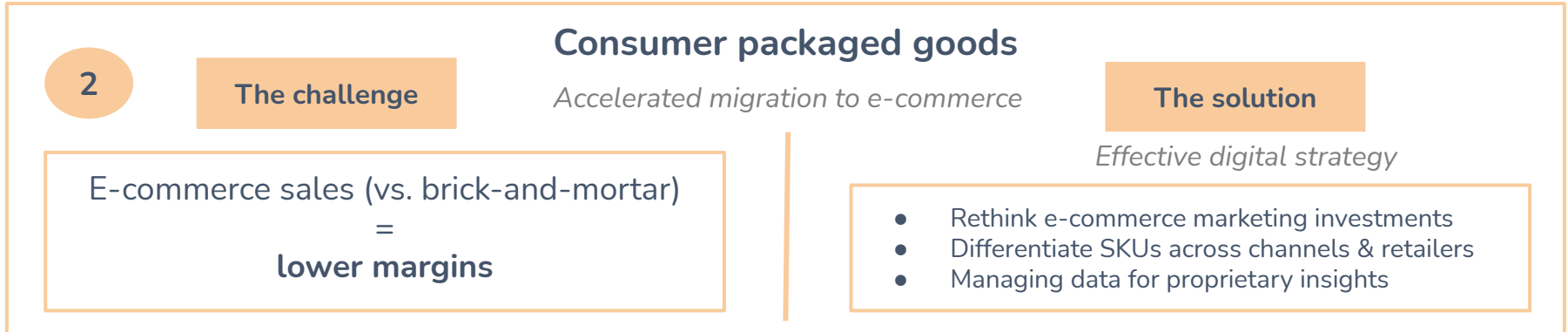
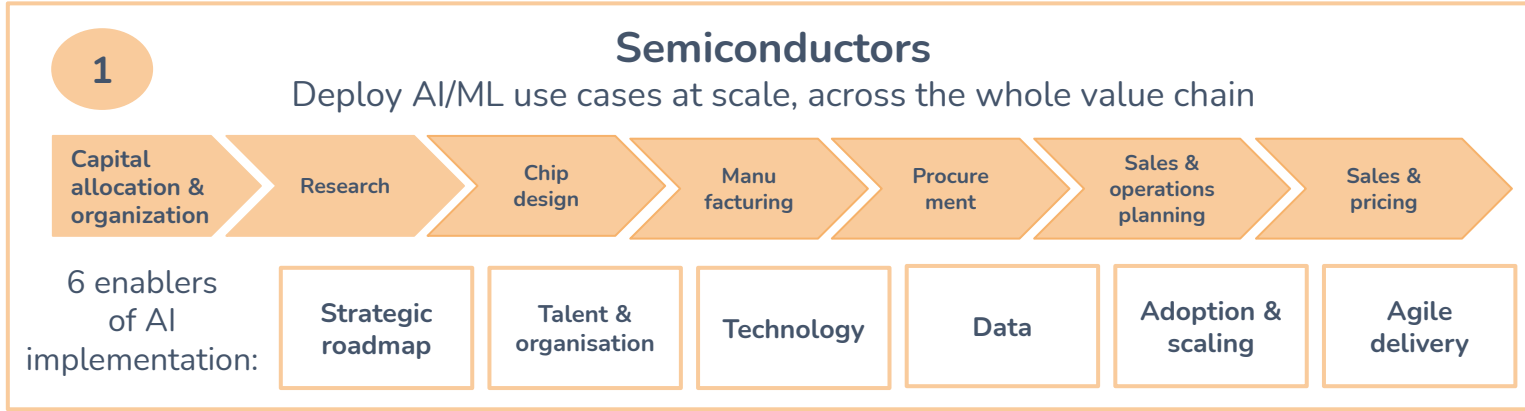
and more

Integrated Collaboration Center

Operators, engineers & business analysts can coordinate decisions & receive alerts about performance or issues



Main challenges in manufacturing industries | 1



Main challenges in manufacturing industries | 2

3

Pharmaceuticals

A local, digital & personalized approach towards launching:

Rapidly
personalized
content

Analytics
-enabled
engagement

Innovative
patient
channels &
services

Nimble
frontline
operations

Closed-loop
execution



4

Construction

Besides general trends,
additional clusters of use cases in
this sector include:

3D printing

Modularization

Robotics

Marketplaces

One topic is of specific importance:

Safety of labour workers, contractors, architects, engineers & suppliers



Potential first use cases

1

Waste reduction

“Creating a digital twin allows for better control of the production process”



Solution

Optimize the production process through implementing centralized data collection and digital and AI models to accurately analyze these data.

2

Opportunity detection

“Using AI technology for opportunity detection can increase revenues with 10%”



Solution

Start separate advanced analytics tracks simultaneously to identify the opportunity and select the right portfolio item to offer, creating valuable input for sales executives.

3

eCTD creation

“Our eCTD framework is a proven solutions, tailored to your specific needs”



Solution

Automate the creation or update of eCTD documents by applying a text analytics solution. Both productivity and regulatory compliance will be positively impacted.



Content



Best AI practices in manufacturing



Introducing Digital Sundai

Why Digital Sundai?

WHY Digital Sundai?

- ‡ Digital Sundai strives to create **superior organizations** through Digital & AI
- ‡ We believe Digital & AI projects only succeed when **technology & business** are both done right
 - ‡ We bring experienced **digital business** competence
 - ‡ Our aim is to bring top **AI & Analytics** expertise
 - ‡ Executed through our **agile digital** methodology and culture
- ‡ Digital Sundai is a **networked enterprise** which only works with top digital talent & top digital partners
- ‡ We are an **Open company** and an integral part of the **Digital community** with relations and access to the latest **Business & Tech** start-ups, scale-ups academia, and established companies
- ‡ **Google Cloud** is our preferred Technology ecosystem

