

INDUSTRY 4.0: REINVENTING DIGITAL TRANSFORMATION

WHAT IS INDUSTRY 4.0?

The adoption of digital technology has reached a point where we are ready for another radical change, the digital transformation of the industry or what we call Industry 4.0.

91% of industrial companies are investing in digital factories

\$72 billion is the expected level of global spending on IoT solutions 2020

88% of global industrial companies agreed that the industrial Internet of Things (IIoT) is critical to their future success

66% said IIoT will result in new revenue streams and business models for their company

FROM INDUSTRY 1.0 TO INDUSTRY 4.0



LATE 18TH CENTURY
First industrial revolution:
Power generation



BEGINNING OF 20TH
CENTURY
Second industrial revolution:
Industrialization



1970S – 2000S
Third industrial revolution:
Electronic automation



2010 ONWARD
Fourth industrial revolution:
Smart automation

WHAT MAKES UP INDUSTRY 4.0?



CYBERSECURITY



AUGMENTED
REALITY



BIG DATA



AUTONOMOUS
ROBOTS



ADDITIVE
MANUFACTURING



SIMULATION



SYSTEM
INTEGRATION



CLOUD
COMPUTING



INTERNET
OF THINGS

INDUSTRY 4.0 IMPLEMENTATION AND USAGE



INITIAL CONNECTIVITY

Introduction and implementation of initial stages of data collection

PROCESS OPTIMIZATION

Advanced networking, digitalization and automation adjustment, thus retrieving maximum potential from collected data, and applying advanced algorithms

PROCESS FLOW AND QUALITY

Digital thread is set up to go through the entire process; high-end cybersecurity measures are implemented to keep the data protected

NEW BUSINESS MODELS

The collected data and insights are utilized to generate innovative revenue streams, as well as add value for customers

WHY IS INDUSTRY 4.0 IMPORTANT?



INCREASED PRODUCTIVITY

- reduces production time
- enables better asset utilization and inventory management



INCREASED FLEXIBILITY

- manufacturing flexibility through machines and robots



INCREASED QUALITY

- real-time production monitoring and quickly intervention in case of errors



INCREASED SPEED

- short time between the first product or idea to the finished one

KEY CHALLENGES OF INDUSTRY 4.0

Lack of unified leadership that makes cross-unit coordination difficult within the company

Data ownership concerns when choosing third-party vendors for hosting and operationalizing company data

Lack of courage to launch the radical digitalization plan

Lack of in-house talent to support the development and deployment of Industry 4.0 initiatives

Difficulties with integrating data from various sources to enable initial connectivity

Lack of knowledge about technologies, vendors and IT outsourcing partners that could help execute the core initiative