DX & Smart Manufacturing Data and Analytics

WHY SHOULD I CARE ABOUT DATA?

The average financial impact of poor data on business is 9.7 million per year (Gartner). In the US alone, business lose 3.1. trillion USD annually due to poor data quality (IBM).

Smarter, data-driven factories and production lines can result in 2.6% annual cost savings (McKinsey).

Organizations make fewer than 50% of their decisions based on quantitative

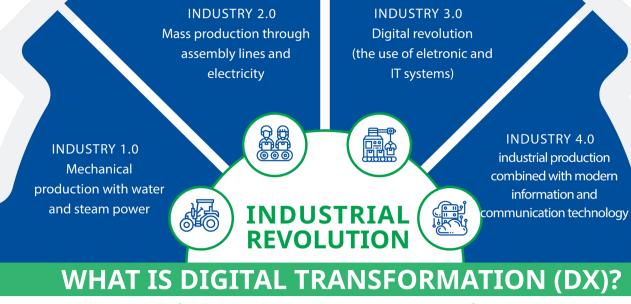
information as opposed to gut feeling, experience, or opinion (Forrester). By 2022, 90% of corporate strategies will explicitly mention information as a

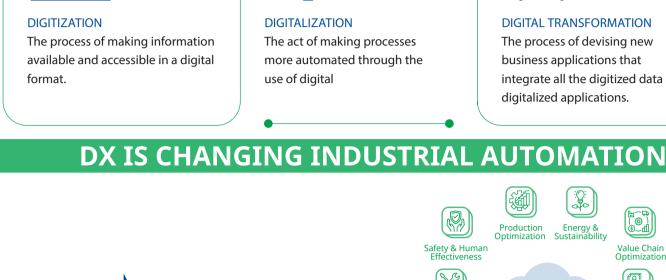
critical enterprise asset and analytics as an essential competency (Gartner).

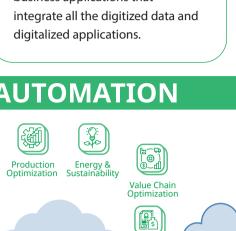


INDUSTRY 2.0 INDUSTRY 3.0

HOW DIT IT ALL START?







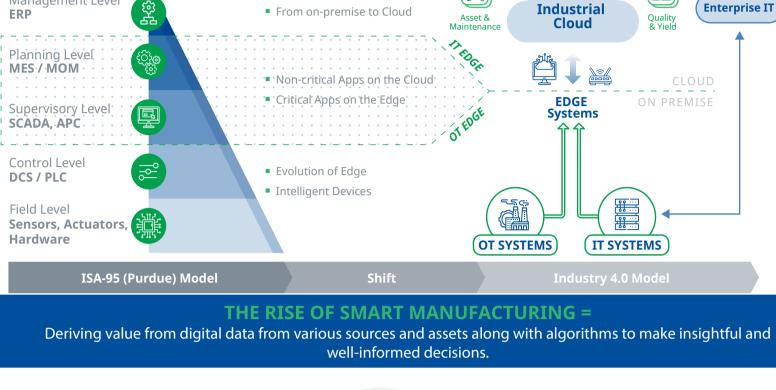
People

Automation

& Autonomy

Decision-making





Employee systems

Data **Applications** Curation

Analytics & Insights

NEW TOOLS AND MECHANISMS Along with exponential increases in IT/OT convergence, there has been a corresponding increase in data volume. New tools and mechanisms have been created to analyze, visualize, and interpret this enormous volume of what some refer to as: big data.

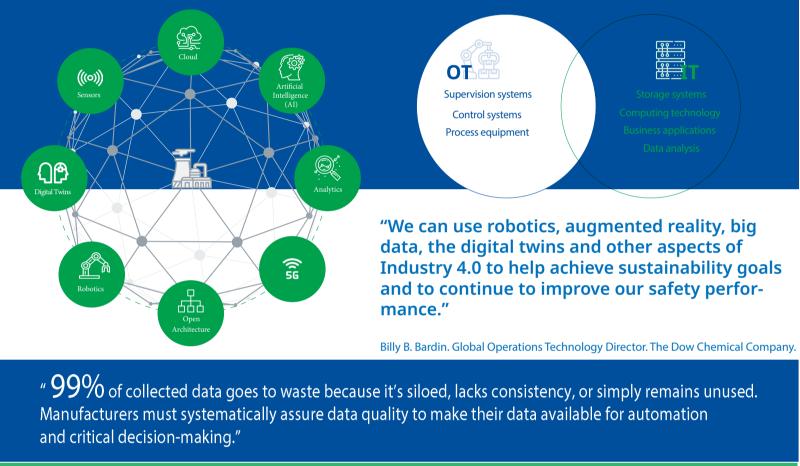
Data

Data

Data

Enablement

Analytics



WHAT TO DO WITH DATA?

PREDICTIVE

What will

happen

What and how do I

optimise using my

data?

Business Process

Optimization, Value

creation / Innovation

DIAGNOSTIC

Why it

happened

Is my data useful?

What can I really do

with my data?

Data cleansing /

curation / analysis &

modeling and new

insights



8

Other Data Sources

DESCRIPTIVE

happened

WHERE IS MY

DATA?

Do I have the data?

Can I get the data?

Connectivity, Data

availability (right data

at the right time with

right fidelity)

Safety & Human Effectiveness

Apps

APIs for Applications

Visualizations & Configuration

Enterprise Data Lake (OT+IT)

Data Ingestion

DCS/PLC/RTU

Analytics & Artificial Intelligence

Production

Optimization Apps

Enterprise Data Management & Orchestration

OT Data (secure)

Asset &

Maintenance Apps

Yokogawa Apps

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Data Analytics

Data Curation

Enablement

Control Network

Multi-site

Data



Cyber Security



Service Providers

Other Data Sources

Eg. Enterprise data lake, weather, market data

Providers

Eg. Data science &

Other IT Systems

EMISI

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ON-PI

PRESCRIPTIVE

What action

to take

HOW CAN MY

BUSINESS GO

AGILE?

How do I create new

business concepts

IIoT Network IT Systems (Hybrid) **OT Systems**

EDGE

Systems

IT Data

Data Preparation

