Industry 4.0 – Technologies and Business Outcomes

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About Me

Senior Consultant in KPMG' s Digital Strategy and Advisory practice

7+ years of experience in Telecommunications & IT industry with key focus on Revenue Assurance, Digital Strategy, Business Intelligence & ICT transformation

TM Forum certified Revenue Assurance Practitioner and a "Certified Data Management Professional" from Data Management Association

Member of DSCI (Data Security Council of India), Hyderabad chapter

A guest speaker and visiting faculty at VIT University, Vellore having trained 800+ graduates in project management & digital transformation.

Served as a resource person at various forums for AICTE, APSSDC, TASK and member at various panel discussions

Expert Mentor for MBA department of Mahindra University, Hyderabad and Member in MBA Board of Studies (BOS), Sri Padmavati Mahila Visvavidyalayam (Women's University), Tirupati

Published 5 research papers and paper presentation in international conference on Business Analytics and Intelligence at IISc (Indian Institute of Science), Bangalore

Did not exist in 2006

- iPhone
- iPad
- Kindle
- 4G
- Uber
- Airbnb
- Android

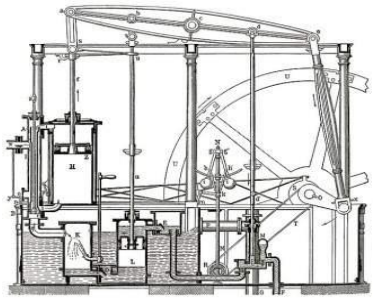
- Android
- Oculus
- Instagram
- Snapchat
- Whatsapp

Time to reach 100 Million customers

- Telephone 75 Years
- Web 7 Years
- Facebook 4 Years
- Instagram 2 Years
- Pokemon Go 1 Month


Every Strategy has an expiry date
Every Hero can become a Zero
Health is important in this crunch time

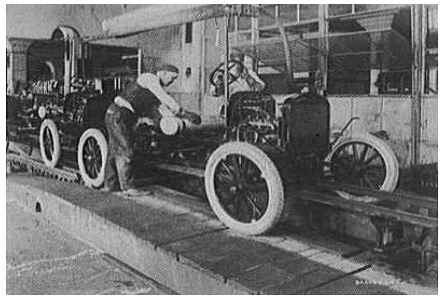
Industrial Evolution



1. Industrial revolution
Introducing mechanical production machines powered by water and steam

Industry 1.0

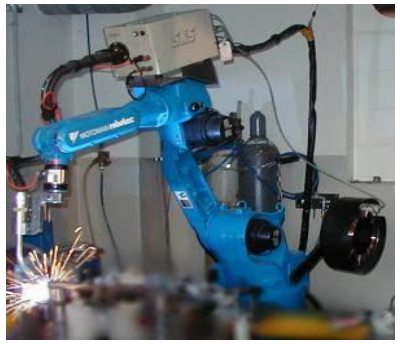
End of the 18th century.



2. Industrial revolution
Introducing mass production lines powered by electric energy

Industry 2.0

Beginning of the 20th century



3. Industrial revolution
Through the use of electronics and IT further progression in autonomous production

Industry 3.0

Beginning of the 80's

4. Industrial revolution
Based on cyber-physical-systems

Industry 4.0

Today

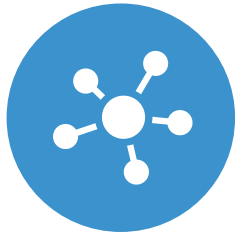
Level of complexity

Source: DFKI/Bauer IAO

From 1.0 → Industry 4.0

Volume of Data

Data storage was the prime focus in Industry 1.0. Most of the initial companies worked on increasing storage capacity



Velocity of Data

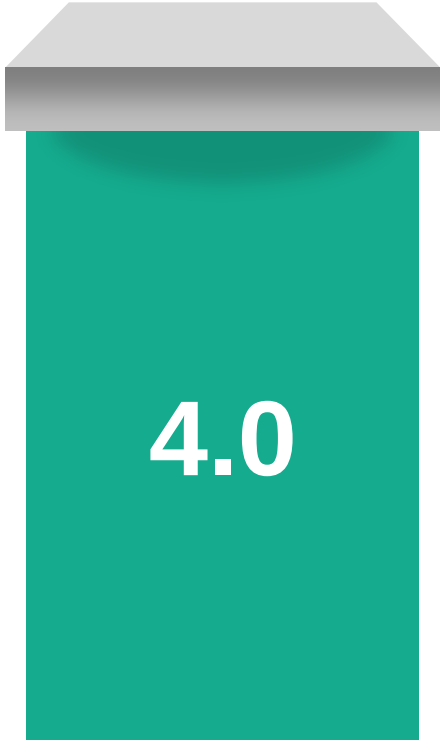
Internet era pushed the boundaries of data sharing and TCP/IP protocols and world wide web infrastructure facilitated better speeds

Variety of Data

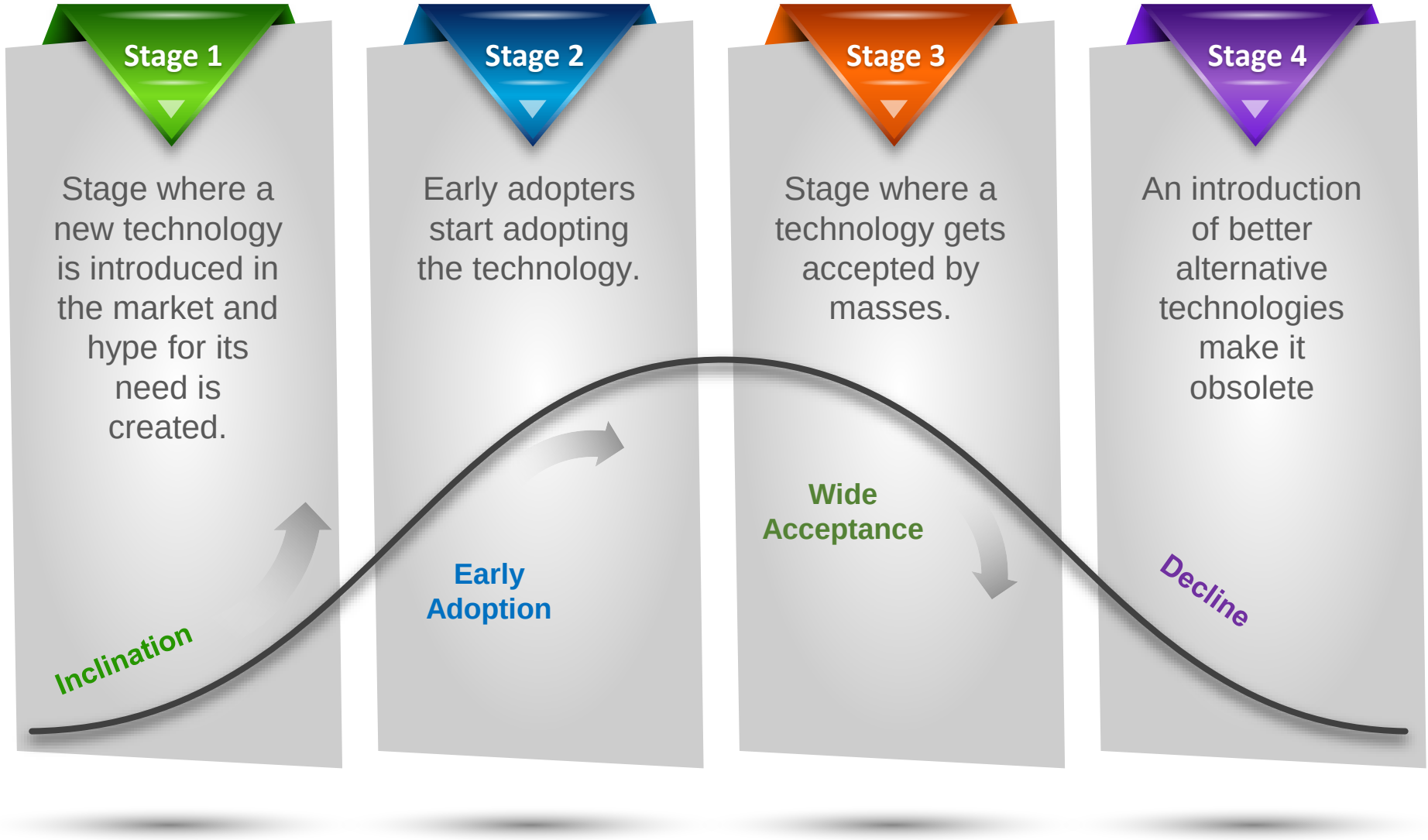
With mass adoption of IT systems through Cloud and access through mobile phones, Varieties of Data got created and Data analytics prevailed

Veracity of Data

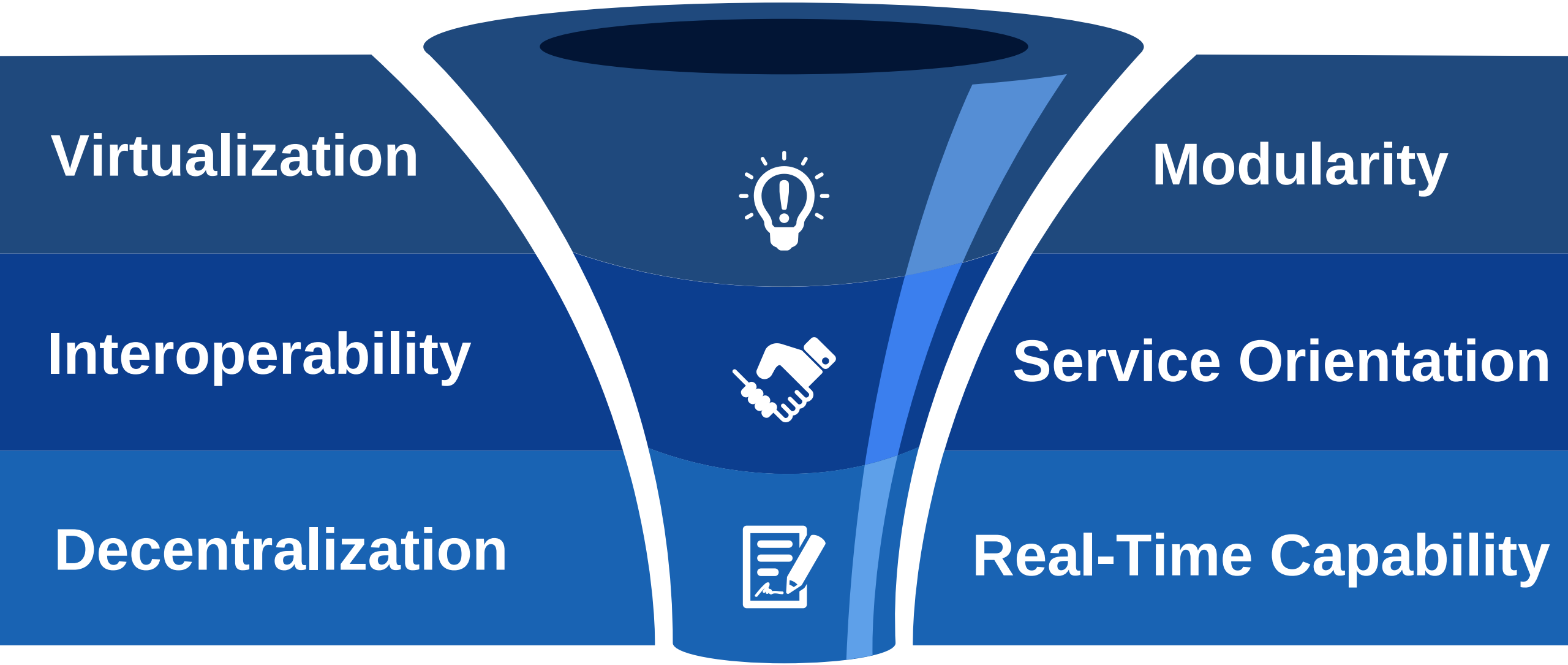
Data security and integrity has become a priority with increasing digital transformation of businesses



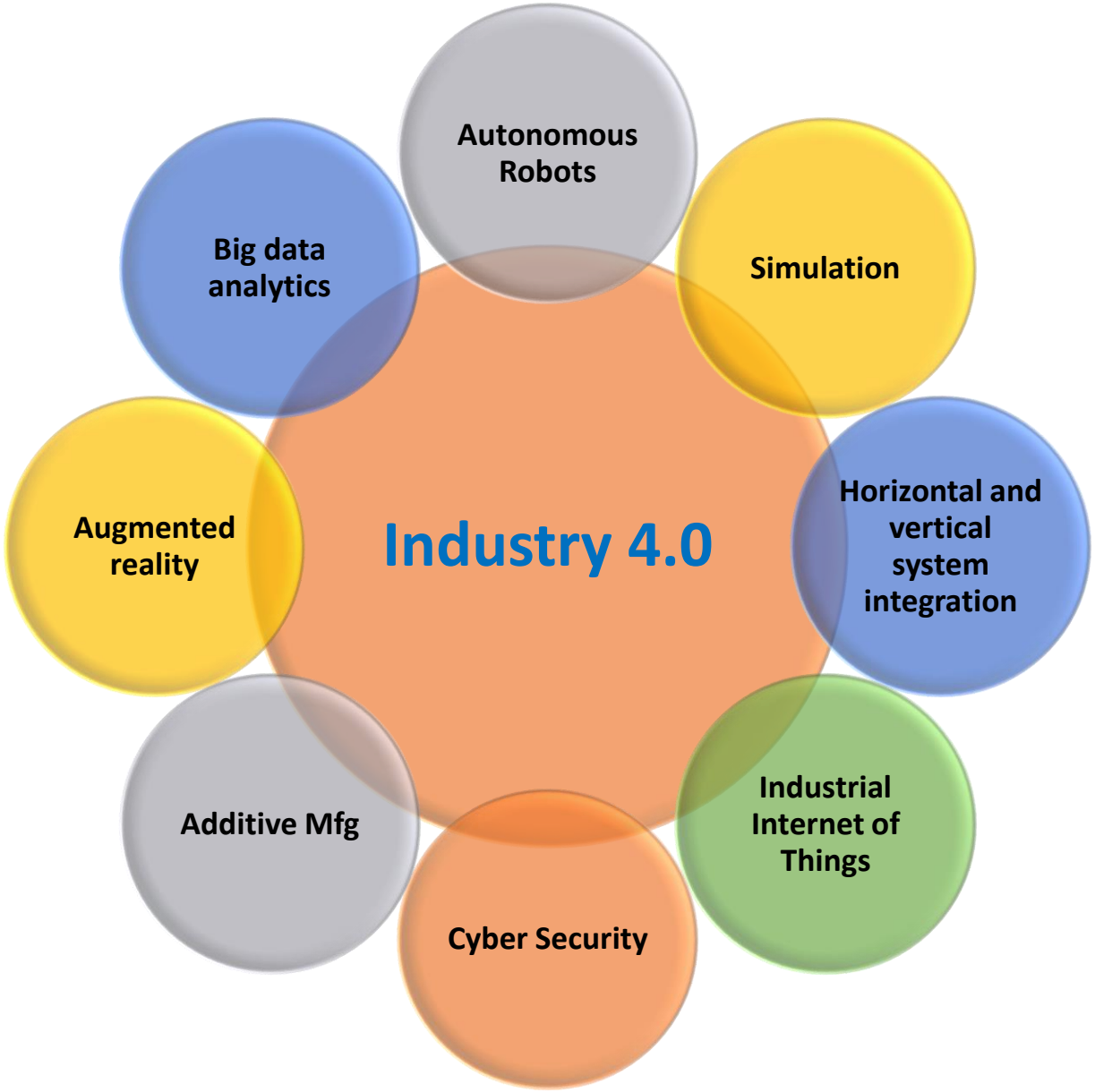
Technology Life Cycle



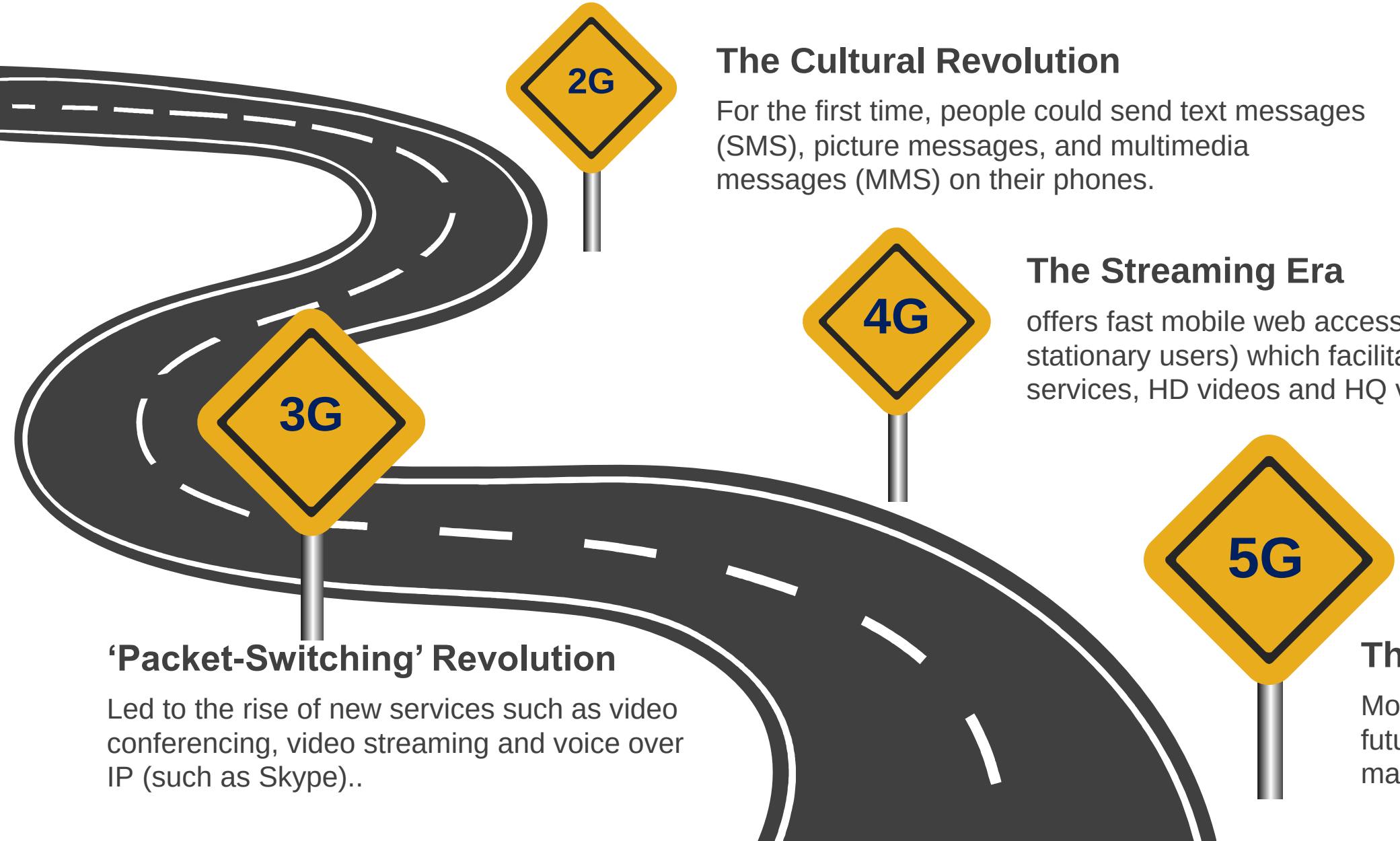
Industry 4.0 – Design Principles



Industry 4.0 – Building Blocks



Evolution of Next Generation Technologies



The Cultural Revolution

For the first time, people could send text messages (SMS), picture messages, and multimedia messages (MMS) on their phones.

The Streaming Era

offers fast mobile web access (up to 1 gbps) for stationary users) which facilitates gaming services, HD videos and HQ video conferencing.

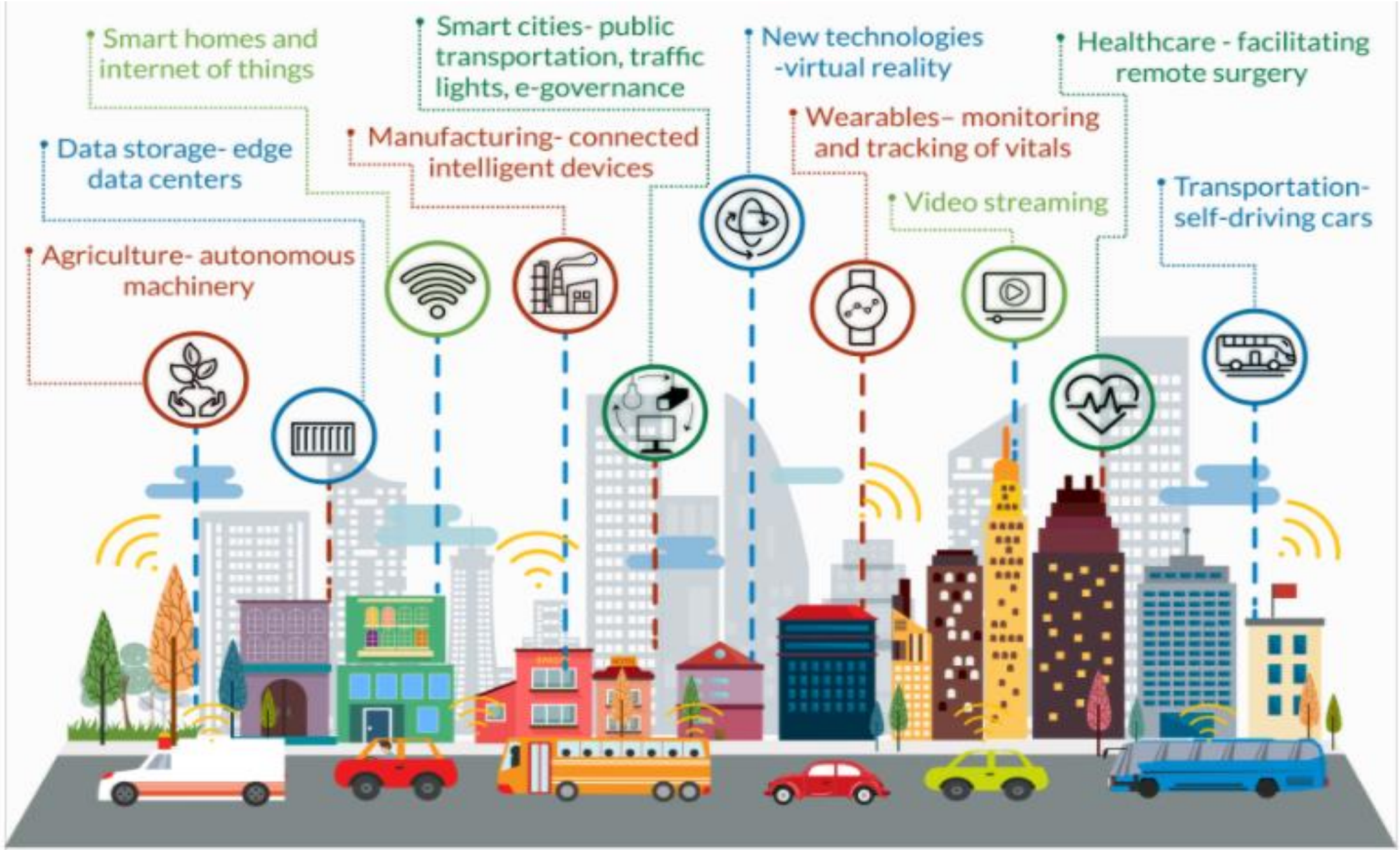
‘Packet-Switching’ Revolution

Led to the rise of new services such as video conferencing, video streaming and voice over IP (such as Skype)..

The IoT Era

Mobile network of the future, helping to make the IoT a reality.

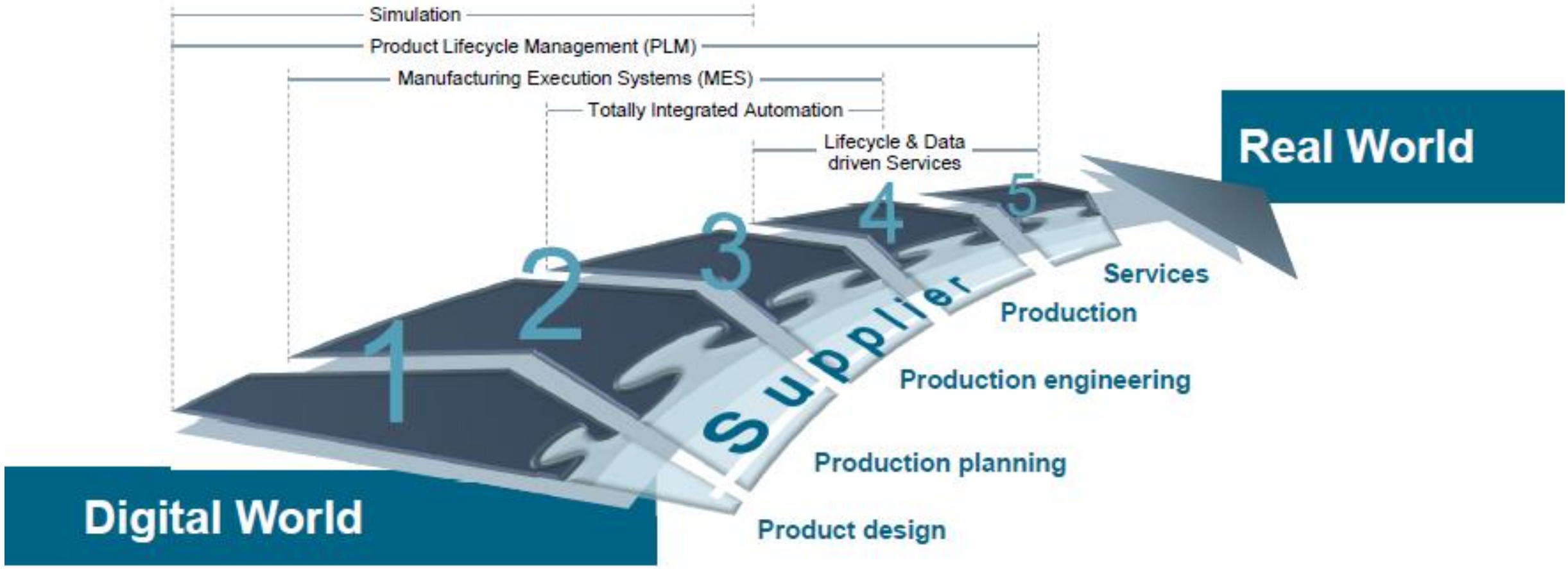
5G enabling IoT



Source: prasa-pl.com

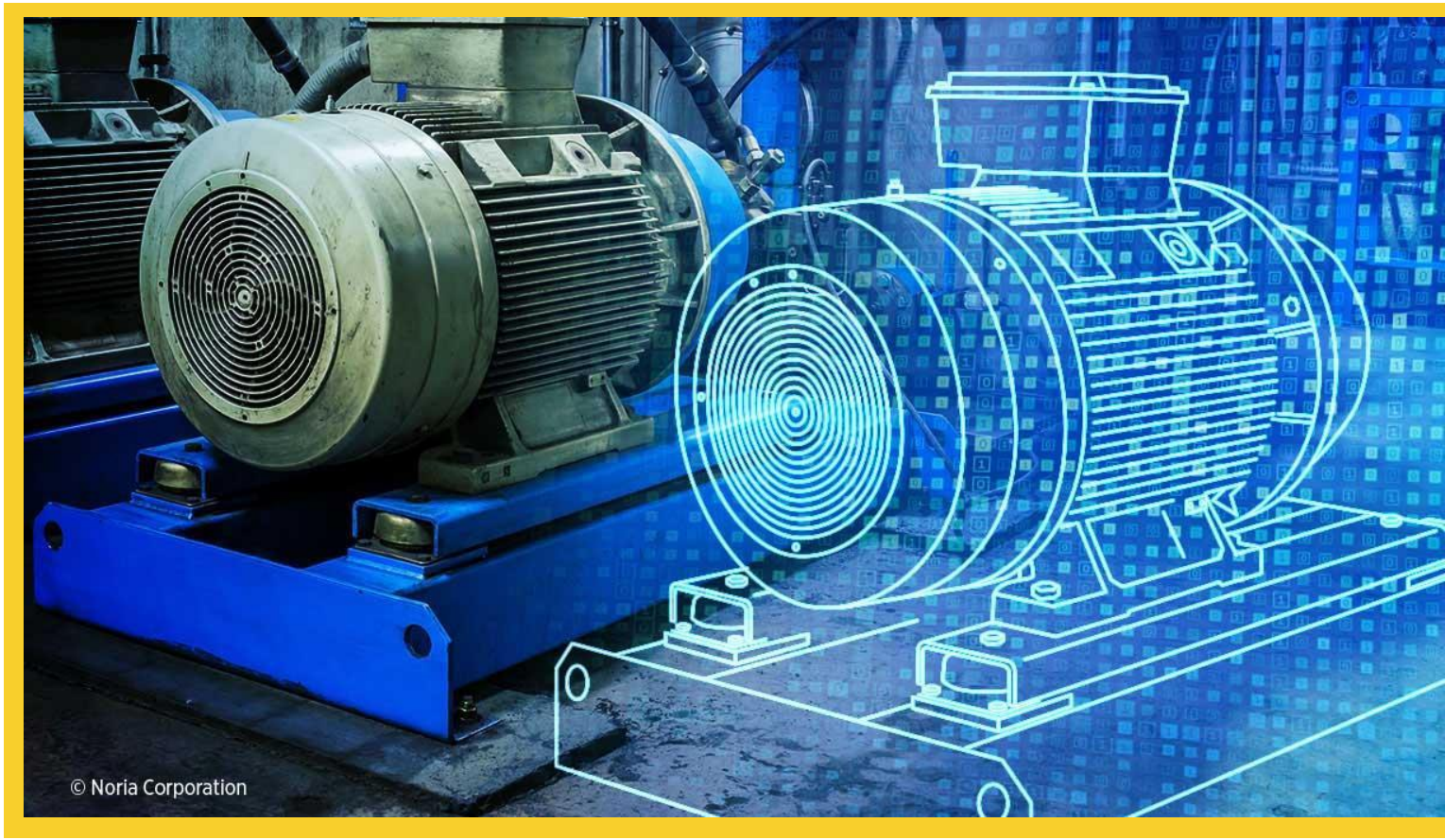
Digital Enterprise

Entire value chain is digitized and integrated



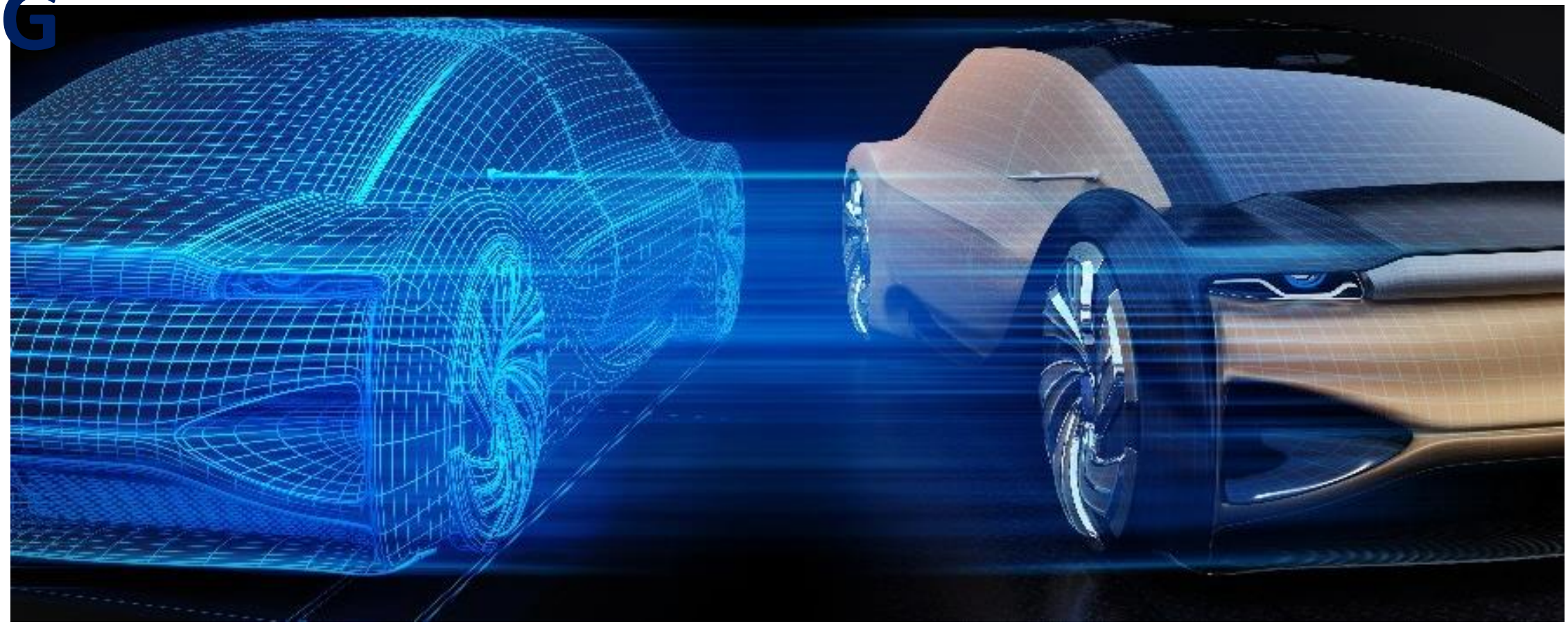
WHAT IS DIGITAL TWIN?

- A near-real time digitized copy of a physical object
- Simulation models of living counterparts



AGRICULTURE

MANUFACTURING



GOVERNMENT

TRANSPORTATIO
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RETAIL

Thank you