# THE EVOLUTION OF INDUSTRY & WHAT'S TO COME FOR INDUSTRY 5.0

Industry 1.0 (1780s)
The First Industrial Revolution

- Steam power transformed many industries, especially textiles and transportation.
- The weaving loom was a particularly instrumental development.
- Production was made easier and faster through mechanization.
- Streamlined production paved the way for innovation and new technologies.
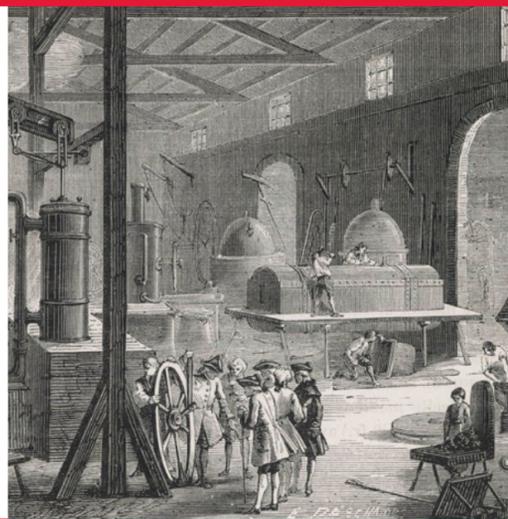
Industry 2.0 (1870s)
The Technological Revolution

- Electrification, i.e., electrical energy in manufacturing and production emerged.
- Electricity drastically increased efficiency, leading to mass production.
- Introduction of the assembly line also scaled-up operations.
- New technological systems and sophisticated machines were introduced.

Industry 3.0 (1970s)
The Third Industrial Revolution

- Computers were simple yet introduced information technology and automation.
- Automation further improved the assembly line, therefore manufacturing capabilities.
- Automated systems still relied on human input via programmable logic controllers.
- Internet access and connectivity are incorporated into the production process.

Industry 4.0 (2011-Present)
The Fourth Industrial Revolution or 4IR

- Digitalization has expanded into interconnectivity leading to "smart" factories.
- Computer-based algorithms run mechanical devices via cyberphysical systems.
- Internet of Things (IoT), cloud computing and cognitive computing (platforms employing artificial intelligence) were introduced.
- Technological improvements — sensors, robotics, additive manufacturing and virtual reality — automate production processes further.

Industry 5.0 (Future)

- Broadening of 4.0 concepts are intended to improve resilience in industrial production and guard against supply chain disturbances and global disasters.
- Aims to reinvigorate true sustainability efforts by furthering industrial digitalization.
- Expansion in cobots will drive a more human-centric collaboration with machines.
- Projected technological advancements include areas in A.I.-powered robots, nanotechnology, autonomous vehicles, wearables and energy storage.

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