



MANUFACTURING
SKILL STANDARDS
COUNCIL

Definition of Industry 4.0

Industry 4.0 is a subset of the “Fourth Industrial Revolution,” a phrase first introduced by Klaus Schwab, Executive Director of the World Economic Forum in a 2015 article in *Foreign Affairs*. This new era envisions the possibilities of billions of people connected by mobile devices, with unprecedented and unlimited computing power, storage capacity, and access to knowledge.

Industry 4.0 refers more specially to the concept of factories in which machines are augmented with wireless connectivity and sensors, connected to a system that can visualize the entire production line and make decisions on its own. Industry 4.0 is characterized by breakthroughs in emerging technologies in fields such as robotics, artificial intelligence, nanotechnologies, smart factories, quantum computing, biotechnology, the internet of things, fully autonomous vehicles, and fifth generation wireless communications technologies (5G).

5G sharply increases the speed, responsiveness, and amount of data that can be communicated over wireless networks. With widespread use commencing in 2019, 5G networks and services will be deployed in stages over the next several years, including multiple uses in manufacturing. 5G communications will accommodate the increasing reliance on mobile phones.

Since MSSC focuses on tasks performed by front-line production workers in all sectors of manufacturing, it selects from among these newly emerging “4.0” technologies, a sample of those that are broadly applicable and foundational.

SOURCES: Schwab, Klaus. ["The Fourth Industrial Revolution: what it means, how to respond"](#). *World Economic Forum*

<https://en.wikipedia.org/wiki/5G>

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