

Cognitive manufacturing and Industry 4.0

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Most manufacturing executives are considering Industry 4.0 or Industrial IoT in their strategy. But what does it mean?

We can say that it is more than just a catchy buzzword and is not just about the increasing connectivity of smaller and smaller components. The focal point is the data collected by physical things. With advanced data analytics, it optimizes the manufacturing processes. It is a new era of the industry!

Cognitive manufacturing transforms manufacturing in three focused ways:

1. **Intelligent assets and equipment:** utilizing connected sensors, analytics, and cognitive capabilities to sense, communicate and self-diagnose issues to optimize performance and reduce unnecessary downtime.
2. **Cognitive processes and operations:** analyzing a variety of information from workflows, context, process, and environment to drive quality, enhance operations and decision-making.
3. **Smarter resources and optimization:** combining various forms of data from individuals, location, usage, and expertise with cognitive insight to optimize and enhance resources such as labor, workforce, and energy.

As more factories and equipment are instrumented for the Internet of Things, data volume will only grow larger and computing must become more cognitive to properly process, analyze and optimize the information.

Utilizing the power of cognitive capabilities, IoT for manufacturing can help harness and mine this influx of information—making your business more cognitive through effective processing, analysis and operational optimization.

With IoT for manufacturing, you can:

- Minimize downtime and optimize asset and equipment performance.
- Improve quality and yield from design through support.
- Optimize the resources engaged around production.

IBM Business Partners working with IBM Innovation Center in Ljubljana are using mentioned technologies to build Industry 4.0 solutions for SME manufacturing companies to help them in the journey to Industry 4.0 in the areas where it has biggest impact to generate additional revenue or improve efficiency and reduce costs.