

Internet of Things (IoT) in Digital Manufacturing

The fourth industrial revolution has started, also dubbed as Industry 4.0.

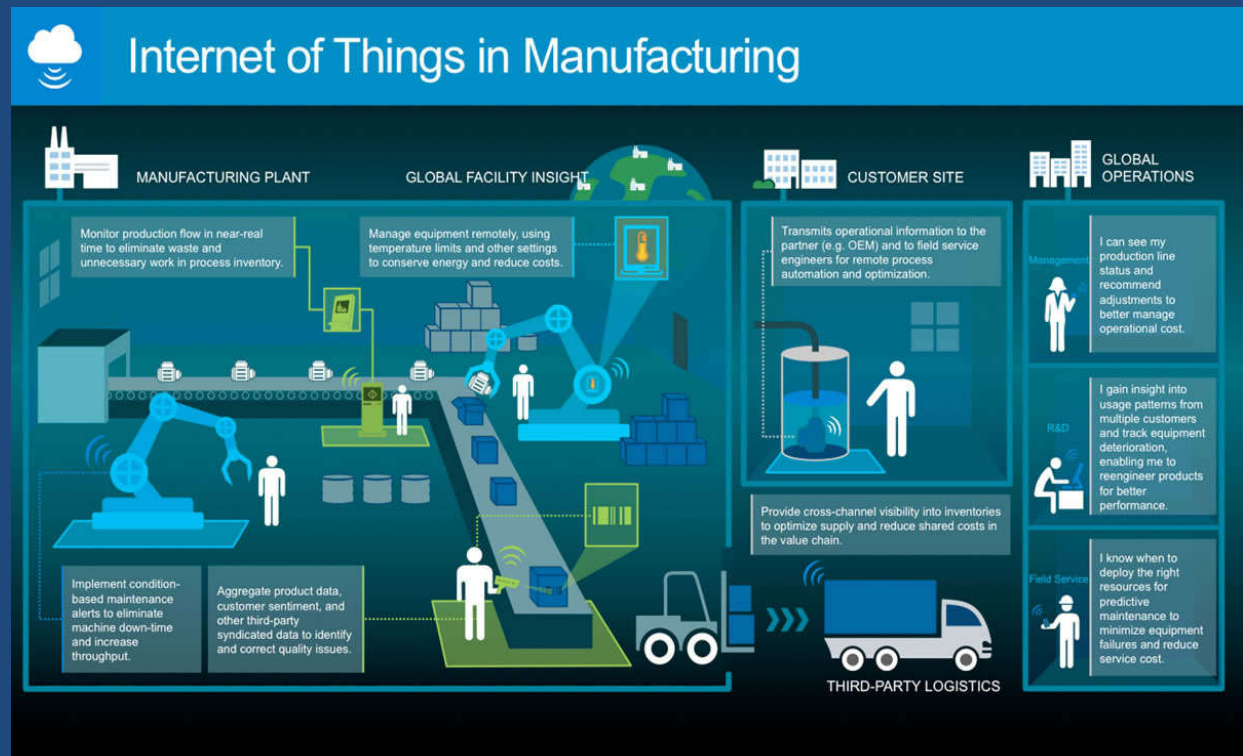
IoT is a core component of industrial transformation efforts across the globe, including Industry 4.0 and the Industrial Internet with the Industrial Internet.

Moreover, manufacturing isn't just the clear leader in the Industrial Internet but it tops ALL industries (including, the consumer IoT space) in the broader IoT reality.

According to IDC data, published early 2017, the manufacturing industry was good for a total IoT spend of \$178 billion in 2016, which is more than twice as much than the second largest vertical market, transportation.

The manufacturing industry is leading in the Internet of Things for various reasons: some are historical, others are related with the so-called next industrial revolution and then there are the many uses cases and actual IoT deployments that offer rapid return and enable manufacturers to realize digital transformations from several perspectives: efficiency, automation, customer-centricity, competitive benefits and the advantages which are offered by using data across the manufacturing value chain and to tap into new revenue sources, a key aspect of digital transformation in manufacturing.

To visualize the usage of the Internet of Things in manufacturing with an overview of the various mentioned places/contexts where IoT is leveraged in the manufacturing space, the graphic below.



1. Production flow monitoring: optimize flow, eliminate waste and avoid unnecessary work in process inventory.
2. Remote equipment management, including setting specific limits and parameters to save energy and costs.
3. Condition-based maintenance alerts: optimize machine availability, minimize interruption and increase throughput.
4. An important one: the usage of various data (product, customer sentiment and more) as a driver of quality monitoring and enhancement in function of outcomes and this aggregated data.