I just read one of IDC Manufacturing Insights’ latest top 10 predictions reports, entitled: Operations Technology 2013 Top 10 Predictions. Prediction #6 caught my attention as an interesting perspective on what it will take to be a global manufacturer today. This prediction states that manufacturers seeking to operate on a global scale must increasingly invest in the technologies that will allow their operations to be more virtual, for the simple fact that manufacturing operations management is increasingly being performed on a more holistic, global scale. Greater virtualization means greater reliance on automation and remote reporting, which explains why there is such a great need for expanded operational intelligence.
Plant-floor equipment must share operational status with other equipment, which might now be located in other factories at various locations. Data and intelligence requirements will only escalate, creating huge pressure to more efficiently access and understand big data now being generated by each of these plants. Obviously, this requirement might be seriously at risk if your equipment is not capable of remote management, monitoring and sharing of operational performance.

Collecting and processing all this information will be essential to coordinate the global plant floor. Your operations network will become more agile and dynamic. And, it will support rapid reconfigurations of production operations, and will be able to flexibly respond faster to ever changing customer fulfillment requirements.

It is for this purpose that the “Internet of Assets” can become a real value-add. Let me explain.

Machine-to-machine or m2m communications become an important factor on how operations are managed and executed. Many remote sensors and tracking mechanisms are already located throughout a factory floor, helping to track Work in Process inventory to ensure the highest efficiency as well as to reduce waste. Once your factory “floor” goes virtual and is located across multiple geographies, however, it is no longer possible for this machine-to-machine communications to occur locally, within a wide area network. Now, this communication must rely on a different technology to share data, which is where the Internet comes in.
By simply integrating Wi-Fi into your equipment, it can then be possible for m2m communications to occur anywhere, across the globe.

According to IDC, the following technology enablers will put you on the fast track to achieving your own global plant floor, letting you best leverage your “Internet of Assets”:

1. A network of intelligent sensors, devices and equipment that can share plant-specific information on a wireless network, in real time.

2. A cloud-based platform that enables those intelligent devices to interact and cooperate with people and IT applications.

3. A decision support system based on Big Data analytics that finds patterns in huge amounts of information and helps manufacturers spot trends and track issues back to their root causes.

4. Social business tools that act as a collaborative hub to enable the rapid diffusion of information, for example machines that can tweet their status.

5. Mobile applications that enable knowledge workers on the plant floor to access intelligent information in real time.

Those manufacturers that invest in the above technology investments will be well poised to take advantage of enormous productivity opportunities by operating more holistically, on a global scale.
The reporting and process improvement advantages alone should pay for the technology investments, given the ability to perform and maintain process improvement is indeed possible.

Source: http://www.apriso.com/blog/2013/03/5-ways-to-best-leverage-your-internet-of-assets/