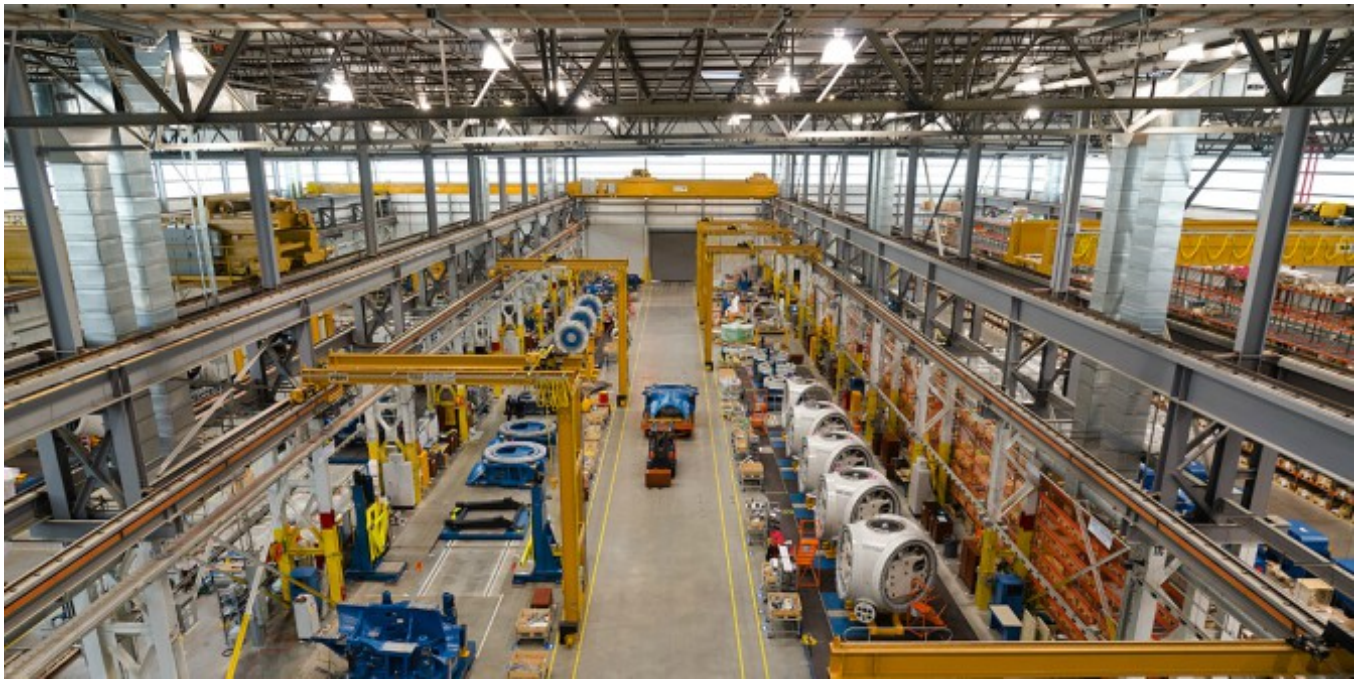
Industrial applications are the juicy part of the Internet of Things

blogs.lse.ac.uk/businessreview/2017/03/20/industrial-applications-are-the-juicy-part-of-the-internet-of-things/

3/20/2017



Say “Internet of Things” (IoT) and most people will think of the many connected products you hear about every year at the Consumer Electronics Show in Las Vegas — from refrigerators that tell you when to buy milk, to smart pillows that lull you to sleep with music, then vibrate to wake you up when you’re snoring.

Indeed, cool gadgets and consumer apps get a lot of buzz, but the lion’s share of today’s IoT *value* is happening more quietly in the industrial business-to-business (B2B) sector. How much value? The estimates of IoT impact vary widely, with several analysts projecting trillions of dollars in value over the next five to ten years. But for you, what matters is the value of IoT in your own organisation. Specifically, you can expect fast payback of your IoT investments generated by reduced labor costs, lower production costs, increased productivity, improved quality, and better, faster decision making.

So how can a company begin to realise that value? Over the last few years, I have met with dozens of customers across the world and in every industry. Many of them have not heard about IoT, or are confused about how they can implement IoT for business impact. But there are also thousands of customers who have already started on their IoT journey. I have looked at the use cases these customers have picked as their first small projects, and grouped them into four categories, which I call fast paths to payback. Here is a quick summary:

- **Connected operations**: By connecting key processes and devices in their production process on a single network, iconic American motorcycle maker Harley Davidson increased productivity by 80 per cent, reduced its build-to-order cycle from 18 months to two weeks, and grew overall profitability by 3-4 per cent.
- **Remote operations:** A dairy company in India began remotely monitoring the freezers in its 150 ice cream stores, providing alerts in case of power outages. The company began realising a payback within a month and saw a five-fold return on its investment within 13 months.
- **Predictive analytics:** My employer Cisco has deployed sensors coupled with energy analytics software in

manufacturing plants, reducing energy consumption by 15 to 20 per cent.

- **Predictive maintenance:** Global mining company Rio Tinto uses sensors to monitor the condition of its vehicles, identifying maintenance needs before they become problems — and saves $2 million a day every time it avoids a breakdown.

These four well-proven scenarios are ideal candidates to help you get started on IoT projects. Armed with an early success, companies can then build momentum and begin to tackle more transformative IoT solutions. Here, IoT provides rich opportunities across many domains, including:

- **New business opportunities and revenue streams** — Connected operations combined with 3D printing, for example, are making personalisation and mass customisation possible in ways not imagined a few years ago.
- **New business models** — IoT enables equipment manufacturers to adopt service-oriented business models. By gathering data from devices installed at a customer site, manufacturers like Japanese industrial equipment maker FANUC can offer remote monitoring, analytics and predictive maintenance services to reduce customer costs and improve production uptime.
- **New business structures** — In many traditional industries, customers have typically looked to a single vendor for a complete end-to-end solution—often using closed, proprietary technologies. Today IoT, with its flexibility, cost, and time-to-market advantages, is driving a shift to an open technology model where solution providers form an ecosystem of partners. As a result, each participant provides its best-in-class capabilities to contribute to a complete IoT solution for their customers.
- **New value propositions for consumers** — IoT is helping companies provide new hyper-relevant customer experiences and faster, more accurate services than ever before. Just think of the ever-increasing volume of holiday gift orders placed online on “cyber Monday.” IoT is speeding up the entire fulfilment process, from ordering to delivery. Connected robots and Radio Frequency Identification (RFIUD) tags in the warehouse make the picking and packing process faster and more accurate. Real-time preventive maintenance systems keep delivery vehicles up and running. Telematic sensors record temperature and humidity throughout the process. So, not only can you track your order to your doorstep, your packages are delivered on time — and they arrive in optimal condition.

So, while industrial IoT hasn’t garnered the headlines of its consumer-oriented cousin, it is real today and is already having a tremendous impact. It is gaining traction across many industrial segments, logistics, transportation, and smart cities. Other industries, such as healthcare, retail, and agriculture are following closely. We are just beginning to understand IoT’s potential. But one thing is certain: ten years from now, you’ll have to look hard to find an industry that has not been transformed by IoT.

♣♣♣

Notes:

- *This blog post is based on the author’s book Building the Internet of Things: Implement New Business Models, Disrupt Competitors, Transform Your Industry (Wiley, 2017).*
- *The post gives the views of its authors, not the position of LSE Business Review or the London School of Economics and Political Science.*
- *Featured image credit: Nordex manufacturing facility, by energy.gov, under a US Government Works licence*
- *Before commenting, please read our Comment Policy.*

Maciej Kranz is Vice President of the Strategic Innovations Group at Cisco, where he is deeply involved in accelerating strategic innovation powered by the Internet of Things (IoT). For more of the author's insights on IoT, visit his web site.