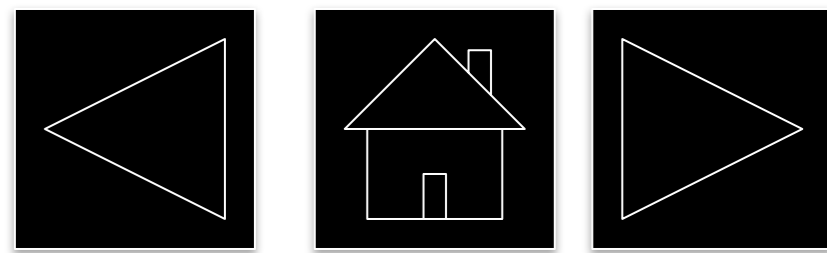


Sensor-Based Logistics and the Internet of Things (IoT)



Background

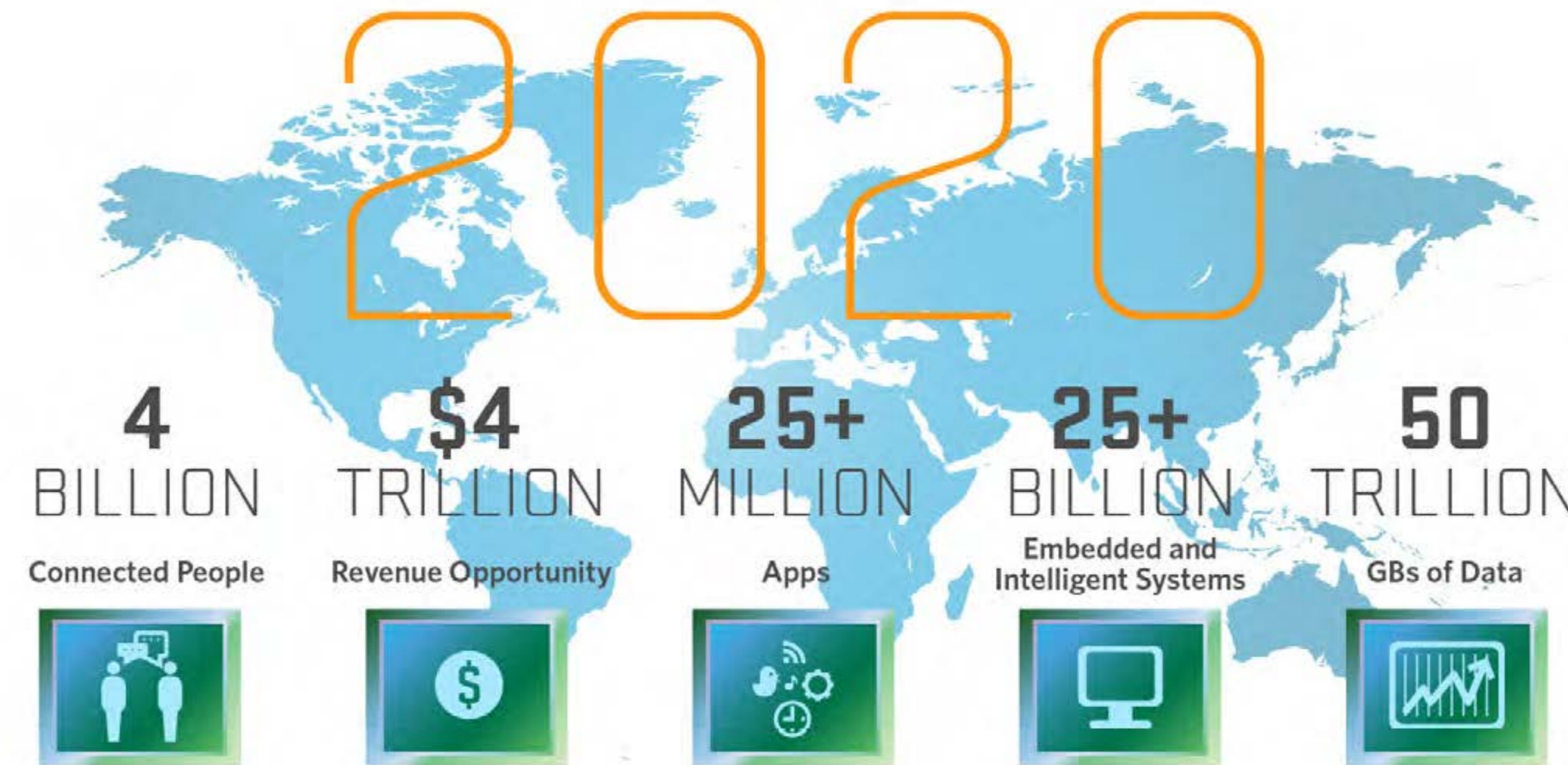
- With advances in tracking technologies like GPS and RFID, barcode monitoring has become omnipresent in today's world.
- Customers take tracking of their shipments for granted. Sharing of this additional information with all stakeholders allows for greater efficiencies and increased customer satisfaction levels.
- Given the decreasing cost of new sensor technologies, logistics providers can now support real time monitoring of not only the location but also a variety of other parameters.



- There was a lot of buzz around RFIDs being the next big thing around 2003, with big retailers bullish about its adoption.
- As sensors become cheaper and even more powerful in the next few years, logistics providers have an incredible opportunity to measure and track an almost infinite amount of data.

Key Questions

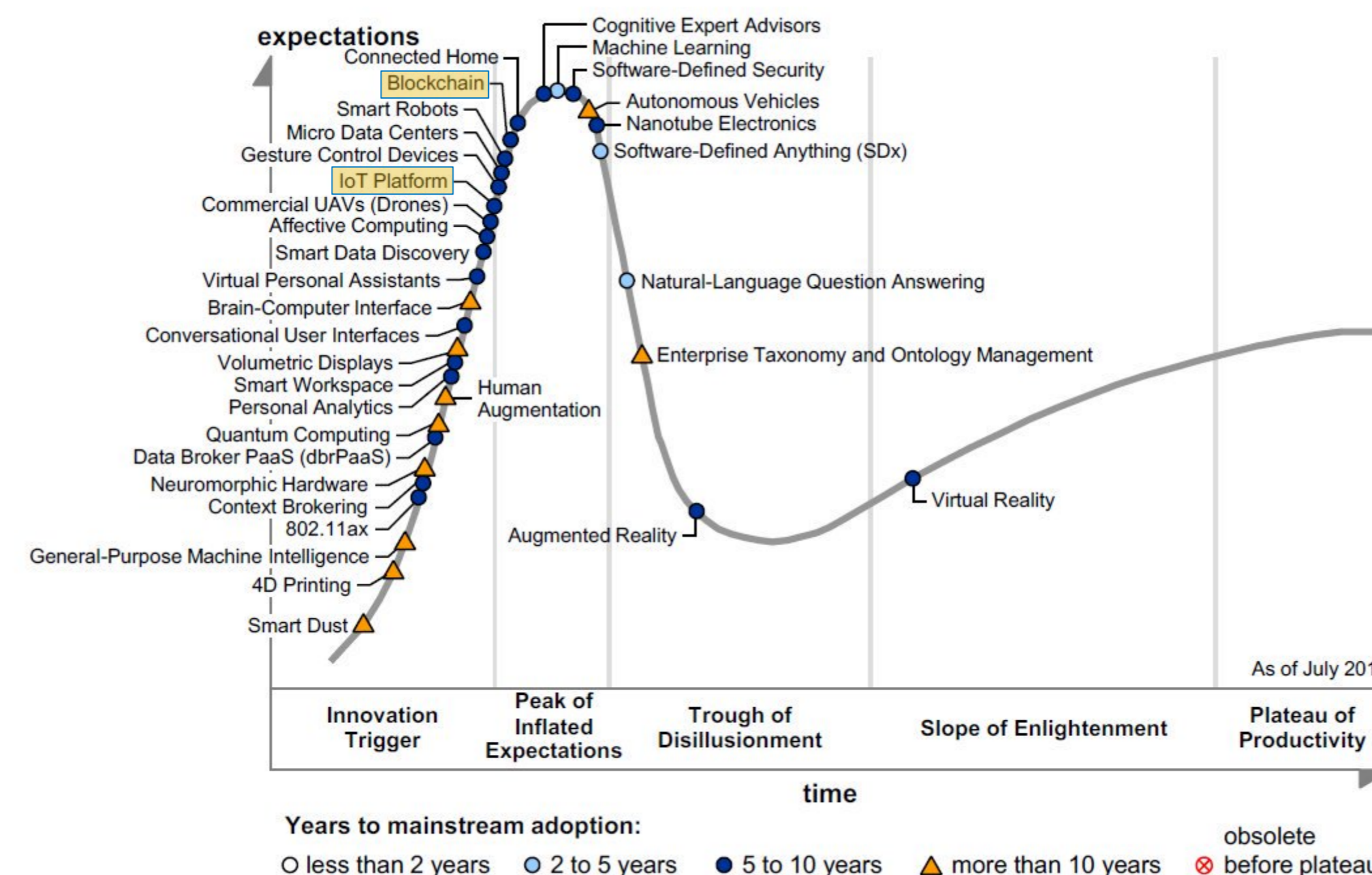
- How can real time monitoring of supply chains using sensors add value to a business?
- What are the levers which affect the mass adoption of sensor-based logistics?



Source: Mario Morales, IDC

The Problem

How can monitoring devices and services add value to supply chains? For example, how can monitoring help managers better run their supply chains, or better serve their customers? Additionally, how can we harness the power of monitoring without falling victim to the famous Gartner Hype Cycle?



Source: Gartner (July 2016)

Methodology

Interviews and surveys with:

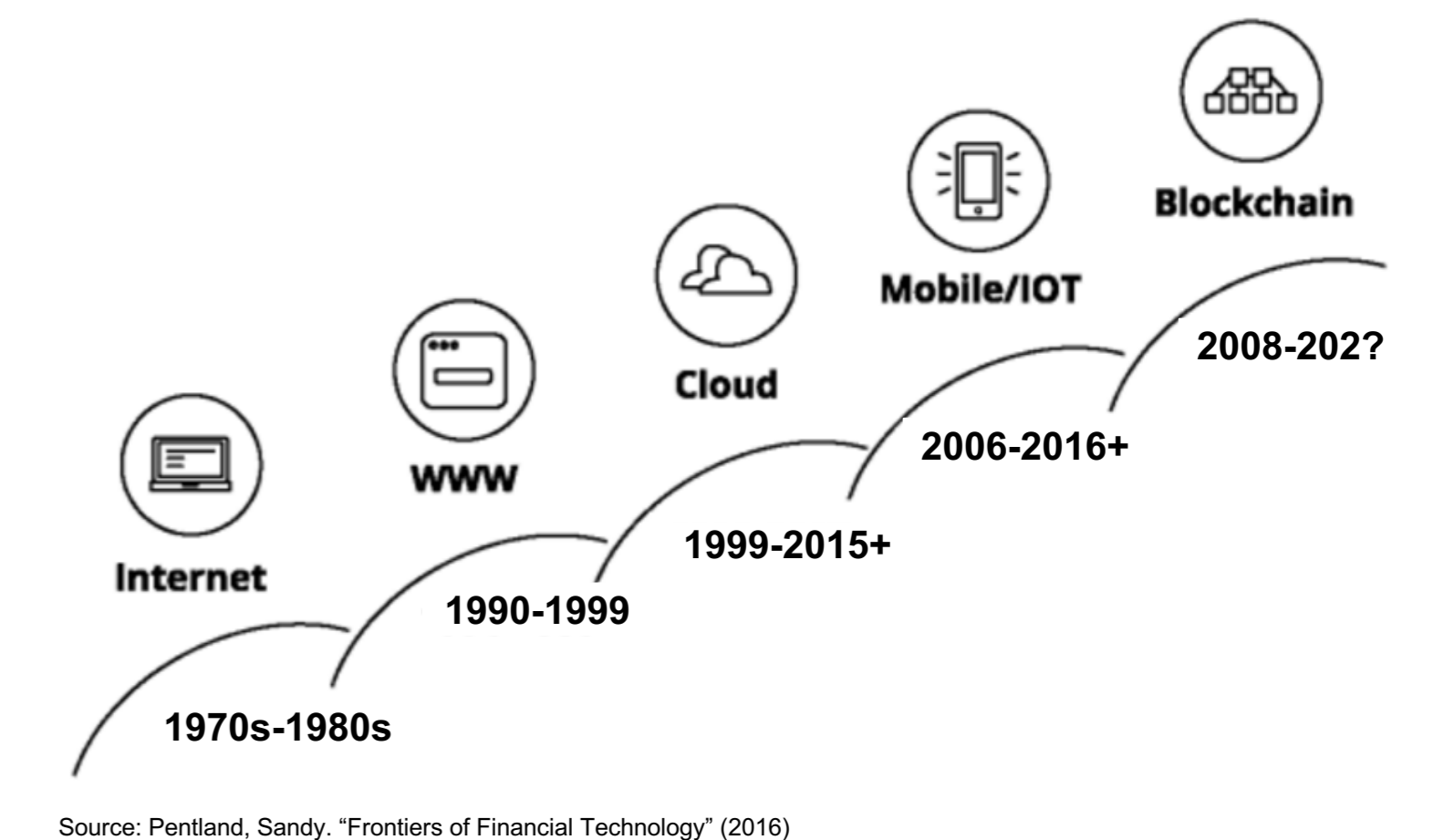
- FedEx customers who use monitoring
- FedEx customers who do not use monitoring
- Other CTL partner companies
- FedEx personnel familiar with monitoring



These surveys will allow us to understand the key issues supply chain professionals have with monitoring their supply chains.

Expected Contribution

This project aims to be exploratory research of the potential of monitoring in supply chain management. We are currently in the 4th horizon of networked innovation which is dramatically changing the world around us. As we slowly enter the 5th horizon, it is critical to have a solid foundation and understanding of the Internet of Things (IoT).



Source: Pentland, Sandy. "Frontiers of Financial Technology" (2016)

Traditional tracking allowed us to know where the product **was**, but real-time tracking will allow us to know where it **is**.

Tony Totoda



Tarun Tiwari

