



## Developing your Manufacturing 2.0 Strategy?

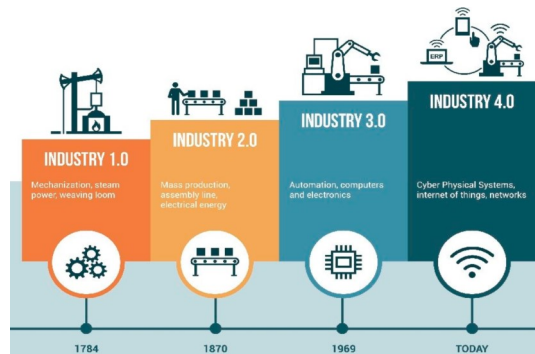
Today there is a lot of focus on technological advancements in digital and industrial technologies generically called Industry 4.0. There are quick and nimble solutions in the Industrial Internet of Things (IIoT) arena that enables the creation of the Manufacturing 2.0 landscape.

This wave of innovation and technology in manufacturing is focused on increasing operational productivity and powering organizational growth. All of the needed capabilities are supported by IT technology and assets. Many companies are putting a strategy in place, to enable their version of the Digital/Smart Factory. However, most companies are just beginning their journey towards realizing a Digital factory.

More and more companies are also revisiting their current manufacturing system roadmap, such as, the traditional Manufacturing Execution Systems (MES) to see if there is a better and faster way to enable these capabilities using IIoT technologies.

Some of the most common use cases we see are centered around:

- **Data Visibility and Analytics/Big Data**
  - ◇ Real time data availability and visualization
  - ◇ Machine learning and quality performance
  - ◇ Relationship of process and part parameters to product performance
- **Agile Manufacturing**
  - ◇ Scalable, modular, configurable, flexible processes and tooling



- **Collaborative Robotics**

- ◇ To address safety/ergonomic challenges
- ◇ To ensure quality & craftsmanship performance

- **Material Flow Automation**

- ◇ Traceability of components
- ◇ Management of automated vehicles/carts for material delivery
- ◇ Automated part picking
- ◇ Routing of Autonomous Guided Vehicles (AGVs)

- **Shop floor Transparency**

- ◇ Smart production scheduling
- ◇ Visibility of connected assets
- ◇ Factory Simulation for Production lines
- ◇ Facility energy management

- **Additive Manufacturing**

- ◇ 3D printing
- ◇ Producing complex products with geometries impossible to make with traditional production methods

- **Automated / Advanced Testing**

- ◇ Advanced technologies in testing to cover additional areas, such as, non contact measurement

- **Augmented Reality for work, Maintenance and Service**

- ◇ Guidance for operations, remote assistance and documentation for knowledge management needed to assist employee work performance

From our experiences, the focus needs to be on understanding the inter-related use cases and creating an integrated technology environment that drives business value. We need to stop focusing on siloed technology enablement. We need to deliver connectivity and traceability throughout the manufacturing environment and provide analytic capabilities to power real time decision making. This drives benefit for the end users and allows for quicker resolution of issues and problems.

Job profiles in the manufacturing sector are changing to meet the skillsets needed to enable Industry 4.0. We see companies working on developing their workforce competencies in order to research, validate, migrate and govern the Smart Factory workstreams.

From an integrated product development strategy, process and technology perspective. DRIVEN-4 can be your strategic partner to deliver a closed loop end-to-end product development solution.

## Coming Next Month

### Extending connected product development into Service