KELLTON TECH


# Your Guide to Building a Business Case for IoT

Fast forward to smart manufacturing with four key steps

# Introduction

We are living in unique times that present new challenges across all sectors and disciplines.

It's also a time of acceleration towards change. From the adoption of mass-scale video collaboration to more complex digital transformation programmes, we are all personally seeking to re-evaluate the way we work to make us more productive and efficient.

In this quick-start guide, we look at what the implications of this transformational trend are for manufacturing. In particular, we look at what it means for stakeholders within manufacturing organisations who have been tasked with sourcing 'smart manufacturing' technology solutions that will lead to a more intelligent future across all operations and supply networks.

## Specifically, we look at:

- Why change is now inevitable
- Getting focused: why you need to hone in on the Internet of Things (IoT)
- How you can start building your business case

**90%**

**of companies believe digitisation offers them more opportunity than risk**



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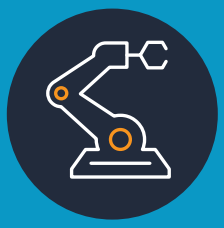
# Why change is inevitable

Getting buy-in from decision makers for new technology investments is never easy. The first question you will be asked on a potential move to smart manufacturing concept is this: "do we really need to change drastically or make these investments to get to where we want to be?"

Your answer should be an emphatic yes.

The momentum towards technological change in manufacturing is growing all the time. Even before 2020, there was strong evidence to suggest that most manufacturers were already planning investments in new digital technologies and systems to work smarter.

**In the UK, *The Annual Manufacturing Report 2020*[1] (published pre-pandemic) reported that:**



**87%** of manufacturers say they need to adopt digital technologies to prosper

**89%** believe smart factory technologies will improve their supply chain relationships

And another **87%** believe smart factory technologies will accelerate innovation and design development

**In Germany, a *Digital Factories 2020*[2] report published by PwC in 2017 found that:**

**91%** of companies are investing in digital factories

**98%** expect to increase efficiency with technologies like predictive maintenance

And **90%** say they believe digitisation offers them more opportunity than risk

1 The Manufacturer, The Annual Manufacturing Report, 2020
2 PWC, Digital Factories 2020, 2017



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Today, momentum is gathering even faster. Amidst the ongoing fallout of the Covid-19 crisis, many manufacturers are now accelerating their plans to help them cope with the unpredictability of workforce availability, supply chain disruption and fluctuations in global market demand.

As McKinsey put it in a recent article on the future of post-pandemic manufacturing technology[3]: "Acceleration is now the watchword... helping companies transform their operations in everything from production efficiency to product customisation, with improvements in speed to market, service effectiveness, and new-business model creation."

This sentiment is also backed by recent research. According to a survey published by the Manufacturers Alliance for Productivity and Innovation (MAPI) in October 2020[4], 85% of leaders say that digital factory investments will rise by June 2021.

The message is clear. As we move further forward into a new decade, 'smart' technology for manufacturing is no longer a vague notion that appears towards the bottom of the to-do list. The idea of digital transformation across both production and non-production operations is now something that SME manufacturers need to consider urgently – both to keep pace with what competitors are thinking, and to tackle the challenges that lie ahead of us all.

# Why IoT is the key building block for smart manufacturing

So what exactly is smart – or digital – manufacturing, and how are you going to sell the concept?

The first thing to say is the concept goes beyond the four walls of the factory, spreading into all operations, and across the supply network.

In a recent report, Deloitte defined the concept as

**"A flexible system that can self-optimise performance across a broader network, self-adapt to and learn from new conditions in real or near-real time."** [5]

In a recent article, The Manufacturer magazine[6] said,

**"With digital manufacturing, manufacturers can create a factory that is a connected, networked and fully integrated environment."**

Definitions like these and of other closely related terms like Industry 4.0 are numerous and entirely valid. The problem is they are also open-ended – which sometimes also means decision-makers can become put off and invest in nothing at all.

There is a way to solve this problem though, and it's by simplifying the concept down to focus on the key building block that supports the vast majority of smart manufacturing concepts: the Internet of Things.

3 McKinsey, Industry 4.0: Re-imagining manufacturing operations after Covid-19, 2020
4 MAPI, Accelerating Smart Manufacturing, 2020
5 Deloitte University Press, The Smart Factory, 2017
6 The Manufacturer, What is digital manufacturing?, 2020



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## This will help you do three key things:

### 1. Engage your audience

IoT deployment in the manufacturing sector is already a well-established concept that has driven rapid transformation throughout the industry using wireless sensors, control systems, machinery visualisation and GPS systems. It also has many possibilities that you can use to show the full potential of what can be achieved – from simple sensor-based systems that serve for predictive cost-saving maintenance programmes, to more elaborate sensor-based 'digital twin' models that simulate processes in live settings and can be used to optimise business performance.

Other well-recognised and proven applications of IoT for modern smart manufacturing operations (both inside and outside the factory) include remote facility management, monitoring production flow, inventory management, predictive and proactive quality testing, safety and security, warehouse optimisation, and supply chain management.

### 2. Bring automation to the fore

IoT makes manufacturing more efficient by automating the fulfilment of processes that would previously have (or could not) have been carried out by humans. This is a key message that connects with decision-makers who are currently pushing for widespread digital transformations designed to replace laborious manual processes that are time-consuming, inefficient and costly.


### 3. Generate data that unlocks unlimited new potential

The IoT doesn't just help to automate monitoring tasks or other repetitive tasks. It is also the engine that generates data that manufacturers can now use to develop systems that self-learn. This is another key message that will resonate with decision-makers who have digital transformation on their radar. They will want discover that IoT – once it's established within their business – will also help them to look forward in the long-term to advanced machine learning and artificial intelligence concepts that could ultimately define the future of manufacturing.



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# Building your case

The arguments for investment in smart manufacturing driven by IoT are strong. The next step is to frame your argument in a formal business case document that will help you achieve approval from budget holders.

As with any business case, your document should include an appraisal of the following key elements and questions:

**Business problem and opportunity**
What current business challenge are you trying to solve?

**Benefits**
What can you realistically achieve?

**Measurement of success**
Will you be able to measure success in terms of time and cost savings, ROI or other criteria that are important to your organisation?

**Risks**
What is the potential for disrupting existing processes and continuity?

**Costs**
What are the true costs (both human and technical) that will need to be balanced with potential cost savings?

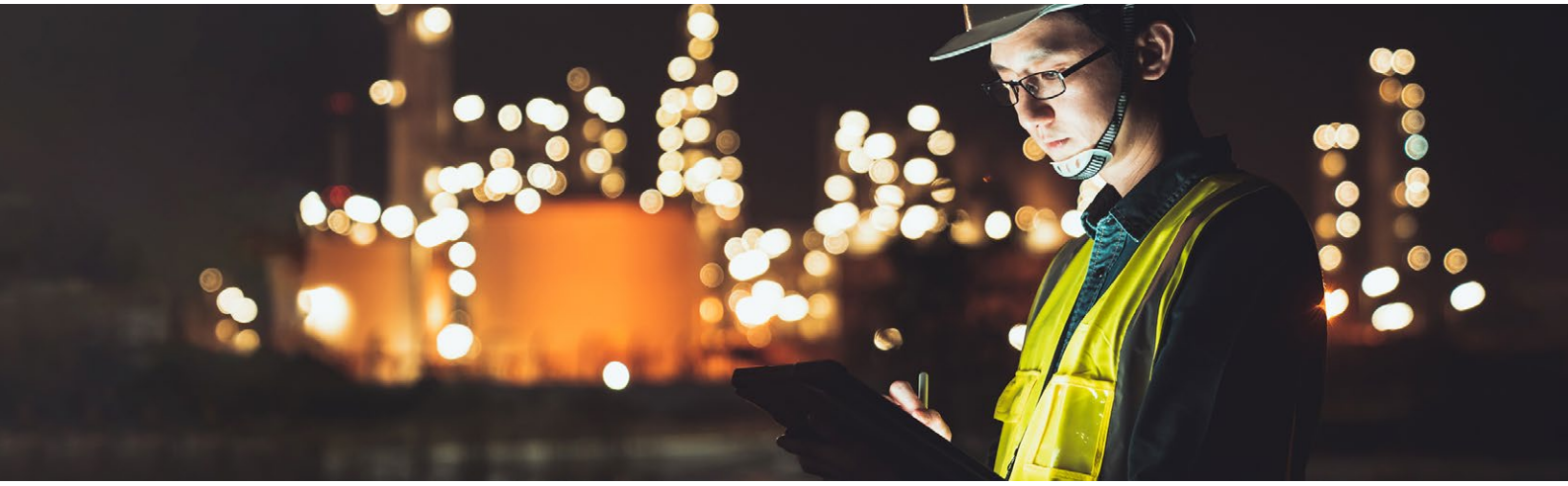
**Technical solutions**
What options are on the market?

**Timescale**
How long will it take you to implement and deliver ROI?

**Your organisational capability to deliver the project outcomes**
Will you able to deliver in-house, or will you need to recruit for skills or engage third parties?

It's important that your case doesn't present these elements in theory, but also shows (a) how you can relate to your specific business challenges, and (b) how you are going to execute in practice with clearly defined aims, scope and budget.

This is critical to improving your chances of success. To help you achieve that success, we recommend you follow four key steps when building your business case that cover design, pilot and review stages:





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Step 1

## Define and scope

- Conduct a discovery workshop to define your businesses general efficiency-improving objectives
- Research how specific IoT applications can help to achieve those objectives and set targets as appropriate
- Select and present one or two IoT use cases that will achieve the objectives in a measurable way

**Kellton Tech Value Add:**
**Step 1:** We bring industry-specific manufacturing expertise with proven templates, methodologies, and processes which ensures the success of your IoT initiatives and business optimization objectives.

Step 2

## Design and plan a pilot

- Explore the technical architecture that will be required to deliver the solution you propose
- Examine the process architecture you will need to run alongside the technical solution
- Show you have carried out checks to ensure the architectures will produce the ROI and objectives you outlined in step 1

**Kellton Tech Value Add:**
**Step 2:** With our reference architecture & industry proven accelerators, we provide clients a consistent, enterprise-wide approach to everything from interoperability and edge computing to industry-specific applications.

Step 3

## Develop and prove

- Set out your costed plan for carrying out a live pilot project
- Define the success criteria for your pilot and how you are going to collect the evidence of success
- Make it clear whether you have skills gap (will you need to recruit external expertise to set up and run your pilot, and if so what are the costs?)

**Kellton Tech Value Add:**
**Step 3:** As an agnostic provider of end-to-end IoT deployments, we collaborate with our clients to facilitate, guide, and support them through all phases of the digital implementation process to accelerate the value of their pilot.

Step 4

## Review and extend

- Demonstrate your method for reviewing solution performance against your original objectives and requirements
- Lay out plans for scaling up the pilot if all success criteria have been met
- Show how your project can be used as a blueprint for identifying, developing and prioritising future projects

**Kellton Tech Value Add:**
**Step 4:** We will assist you to bring your IoT pilot to full-scale production. For organizations that will use the IoT solution for internal efficiency and operational uses, full-scale production may be their end goal. Other organizations may wish to commercialize their IoT solution as a saleable product(s).

By following these steps you will not only be able to develop a plan that has compelling benefits. You will also be able to show you are providing a future roadmap that goes beyond a one-off standalone project. Ultimately, you will be in the best possible position to help unleash the potential of smart manufacturing for your business.



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# Next steps

There are no doubt many challenges to come for manufacturers over the next decade that will be defined by economic uncertainty.

At the same time there is growing room for optimism. As we reach the end of 2020, PMI data shows that some manufacturers in Europe are already bouncing back from the disruption they faced this year and are seizing new opportunities to grow.

At Kellton Tech, we can help you embrace new opportunities and achieve your goals with a proven methodology for adopting the smart, IoT-driven technologies that will define our factories of the future.

Start your journey by using the contact details below:

## "Quick" Start your IoT Pilot Today!

Leverage Kellton Tech's professional expertise and IoT QuickStart to build a fixed price, cost-effective, low-risk IoT pilot in 6 weeks and create an IoT solution that delivers real business value

Kellton Tech is a 'Born Digital' technology consulting and services company founded on the belief of 'Infinite Possibilities with Technology.' The company has helped startups to Fortune 500 clients build disruptive Digital Transformation solutions and leverage technology as a competitive differentiator for their businesses. Driven by deep domain knowledge and technology expertise, Kellton Tech adds value to client relationships by being as a Trusted Partner. A rapidly growing company, Kellton Tech has been placed four times on the Deloitte Technology Fast 50 India list and has been recognized by Forbes Asia as one among the Top 200 companies in 'Best under a Billion' 2017 List. With operations across the US, Europe, India, and Asia-Pacific, we are consistently on the lookout for the next competitive advantage.

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