

PwC and Microsoft



The Smart Factory

Creating value at scale in digital manufacturing.

The challenge

Manufacturing is constantly facing pressures to improve cost, speed, and resiliency. Digital factory innovations have finally started to prove themselves as a viable solution to address manufacturing challenges.

However, many Industry 4.0 efforts are hampered by the lack of central analytics and insight platforms and the ability to adopt digital innovation into factory standard work. Accordingly, Industry 4.0-enabled value at scale is still rare among manufacturers.

Our approach

PwC's Smart Factory tech enabled services combine digital, modern and foundational capabilities, through our 'value first' approach, to enable manufacturing to become more flexible, more efficient and less prone to interruptions.

Our Smart Factory agile delivery model seeks to find value through digital manufacturing by combining our strategy, manufacturing, and digital capabilities. We help implement and configure the Smart Factory platform and "app store" (Factory Intelligence) with solutions that leverage analytics and the [essential eight technologies](#) to help resolve operational challenges and create business value.

Case study

The client wanted to implement manufacturing digital solutions in capacity constrained plants.

PwC analysed the value stream flow of the operations and isolated specific, quantifiable root causes of variability and lost production. We imagined new digitally enabled experiences with the manufacturing stakeholders and defined the use-cases that brought them to life. We then established real-time data pipelines to an Azure based platform and built automated workflows, visualisations, and analytical apps into factory standard work. The solution constantly tracked opportunities and reported the value created.

The new digital capabilities and ways of working immediately **reduced lost production time by 15%**, and the client has continued to build and scale other apps and capabilities across its factory network.

Benefits

Increase profitability



Improve profitability and cash position (**EBITDA increase of 3-6%**) to ensure sustainability and prepare for growth

Improve resiliency



Quickly respond to fluctuations in demand without sacrificing profit

Drive efficiency



Reduce manufacturing costs by approximately 10-20% through outcomes such as OEE improvements via operational excellence and lean practices

Enable Industry 4.0



Identify applications where plant productivity can be enhanced through Industry 4.0 solutions

Contact us for further information

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PwC's Smart Factory tech enabled services include:

Manufacturing strategy



Overall manufacturing strategy specifying 'how to win' through footprint design, a portfolio of world-class operating capabilities, and improvements in customer responsiveness

Rapid network and factory assessment



Fact-based assessment, analytics, and benchmarks to identify and prioritise areas of highest business impact, within a single or multi-plant networks

Manufacturing transformation



End to end execution of value-at-scale through applied operational and technology innovation - assess, design, build, implement and operate across our client's manufacturing operations

Rapid capability improvements



Targeted, rapid improvements to address immediate challenges while motivating and upskilling the operations stakeholders - quick wins to jump-start adoption

Use case and application development



A portfolio of proven use cases ("factory apps") configurable or customisable for distinct manufacturing environments across our client's network

Systems reference architecture and connectivity



Benchmarks and examples of target systems reference architectures that solve capability and connectivity gaps; vendor selection and integration services to establish the architecture

PwC Factory Intelligence helps accelerate the adoption and value of digital manufacturing innovation. It enables customers to execute a smart manufacturing transformation, taking operational and technical challenges into account and visualising the art of the possible.

PwC Factory Intelligence - PwC's Azure based digital manufacturing platform



Strategy through execution

Covers the entire transformation process from identifying bottlenecks and relevant use cases to implementing the solution



Client specific flexibility

Customisability of modules ensures high flexibility and fast implementation of client specific use cases



Employee enablement

Promotes a hands-on mentality, as employees are users and can actively work with and benefit from the solution on an operational level



One service provider approach

Combines high expertise of operational consultancy as well as in digital technologies and provides software



Modular basis

A proven smart factory digital solution, with a modular structure to enable focused, rapid development



Cost-efficient digital solution

Addresses clients expectations and needs for cost-efficient, high-impact digital solutions