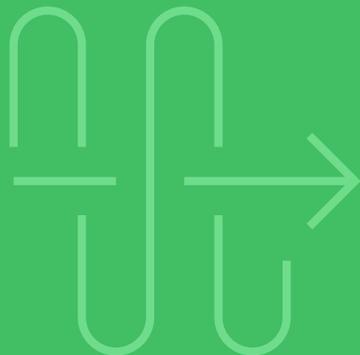


Connected Edge Solutions on Azure

Build Smarter Operations
with Computer Vision,
Connected Devices and
Digital Twins

Intelligent plants, warehouses, packaging and distribution centers are created by leveraging potent combinations spanning Automation, Artificial Intelligence (AI), the IoT, Edge Computing, Cloud, 5G, and Digital Twins to transform their operations.¹



An IBM survey of more than 13,000 executives illuminated a new category of data-driven companies called “Torchbearers”. These are the DATA ELITES, who have created a culture of data believers, invest heavily in their people and use analytics to improve the quality of their decisions.

Our study points out that Torchbearers now generate 69% higher revenues and 63% higher margins than their peers.

Clearly organizations that have fully integrated data into their business strategies, operations and culture are on a path to higher performance. Our objective in IBM Global Business Services (GBS) is to help our clients become one of these high-performing, data-driven companies.

IBM's Connected Edge Solutions (CES) on Azure provides:



Assets and solutions that allow “smart” devices to deliver new insights and build holistic view of environment



Enables rapid prototyping and production scaling utilizing our expertise in AI, Edge and Cloud computing



Yield extraordinary efficiency and cost savings using two complimentary offerings described below

EdgeVision on Azure

This offering includes end to end solution components integrating Camera Systems, Computer Vision based AI, Edge and Cloud Computing for Manufacturing, Packaging, Warehouse and Security applications.

- **Reference Architecture** engineered with experience and tested to perfection for various use case patterns
- **Code framework, accelerators** for faster development cycles and IBM Research's SDK to make AI work efficiently on the Edge.
- **Device advisory** and consulting services
- **Integration with ERP, PowerApp and PoweBI** systems to automate end-to-end data reporting.

Digital Twin on Azure

Digital Twin provides a dynamic, virtual simulation using real-world data to enhance operations and support human decision making. IBM offering covers

- **Model**, simulate, test, and optimize assets, operations, and processes
- **Digital Twin Knowledge Graph** that provides a Digital Thread across many information systems
- **IBM + Unity** for all-in-one platform for creating and operating 2D, 3D and VR apps at speed.
- **Intelligent workflows** across OT and IT systems

10%

Increase
in Yield and
Operational
Efficiency

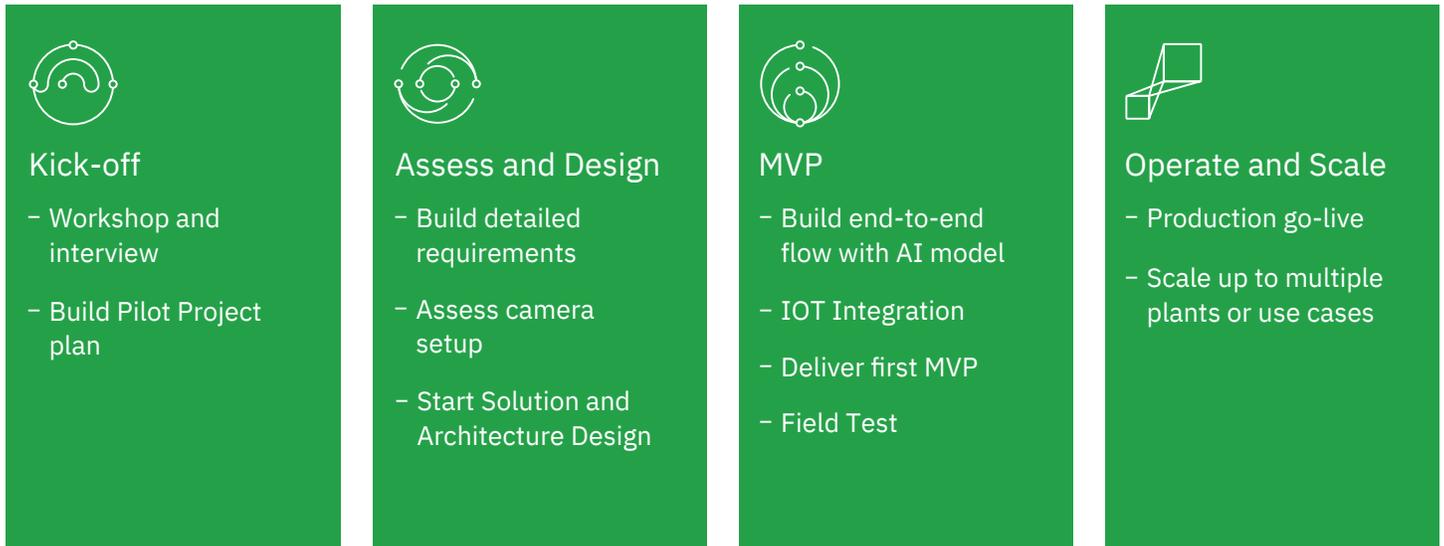
15%

Increase
in Asset Life

20 - 25%

Reduction in
Safety Incidents

Engagement Model



Siemens Gamesa Cuts Time to Market for Wind Power



Siemens Gamesa (SGRE) is the global leader in wind turbines with over 107 GW of generating capacity in 75 countries worldwide. The company's turbine blades are over 108m long making them the largest one-piece composite structures in the world. Each turbine blade is custom designed to precise specifications, and any defects during manufacturing results in complex, costly and time-consuming corrections.

Together with SGRE and Microsoft, IBM GBS built a solution combining computer vision, laser sighting, machine learning and IoT sensors that reinvented turbine blade manufacturing. **Our new “Optical Blade” solution provides real time quality control and shrunk defects by 25%.**

The solution also uses established GBS blueprints for Microsoft Azure and an agile delivery process for consistency with corporate security standards. The use of a consistent blueprint on Microsoft Azure allows faster scaling across multiple platforms, sites and systems in SGRE plants worldwide. Ultimately the GBS Optical Blade will enable SGRE to accept more client orders , increase revenues and transition the world to green energy.

[Read more](#) →

With strong capabilities in machine learning and thorough cloud engineering practices, IBM helped us build a solution that meets all our needs.

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Why IBM



Microsoft's fastest growing GSI



15,000 Certified Azure Specialists



1,000 Cloud Migrations in the past year



30 global centers, 55 languages,
24x7 operations



17 Microsoft Gold Competencies



SAP on Azure Advanced
Specialization



Analytics on Azure Advanced
Specialization



Azure Expert Managed Service
Provider (MSP)



Microsoft Analytics Specialization

¹ Expert Insights "Smart Manufacturing, AI Technologies, Intelligent Insights", IBM Institute for Business Value report, 07032207USEN-00, May 2020

