

Contents

Business Need and Value Proposition

Avanade's Point of View

Offering: Intelligent Manufacturing

Why Avanade?

Get Started



Industry Pain Points

Challenges manufacturing companies face in their **digitalization journey**:



Inability to drive scale and pace



Difficulty in **digitizing across factory network**



Lack of resources to gather, analyze & monetize data across consumer touchpoints & broader operations ecosystem

We can help you...

01

Deliver the digital factory vision at an even greater pace

03

Create a strategic program with creative commercial constructs to deliver benefits early 02

Bring knowledge, insight and scale from ecosystem partners to drive the digital factory globally

04

Align your stakeholders to operate as one team and deliver one mission



Why now?

1 "Notes from the AI Frontier: Insights from Hundreds of Use Cases," Mckinsey Global Institute 2018

2 Ibid

3 "Top 6 findings from IoT Signals: Manufacturing Spotlight," Microsoft

4 "Future Factory: How Technology Is Transforming Manufacturing," CB Insights

\$2T

estimated annual impact of Al and analytics on supply chain management and manufacturing¹ #1 Highest Potential \$ Impact

for AI in supply chain management and manufacturing:

Predictive maintenance²

45%

of manufacturers are in development/POC stage for digital twins³ \$647B

annual cost of industrial downtime⁴



Our Point of View on Intelligent Manufacturing

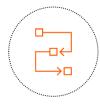
Think Big, Start Small. Use a staged implementation sequence to gain incremental value while moving towards your grand vision. Start with high priority use cases with meaningful expected business impact and design experiences to fit seamlessly with existing processes.

Our proven end-to-end approach accelerates ROI; get there with someone who has done this before.



Swift Innovation

New technologies speed up production and accelerate time to value of new sustainable products, processes and services



Adaptable Operations

Successful transformation from the shop floor to the boardroom enables robust, agile, adaptable production



Maximize Insights

Smart connected systems and enhanced practices allow you to engage your data at scale



Intelligent Manufacturing Lifecycle

R & D

- Maintenance feedback, product usage analytics drive asset and product design
- Connected R&D

Procurement & Suppliers

- Demand Forecasting
- Strategic Supplier Selection

Inbound Logistics

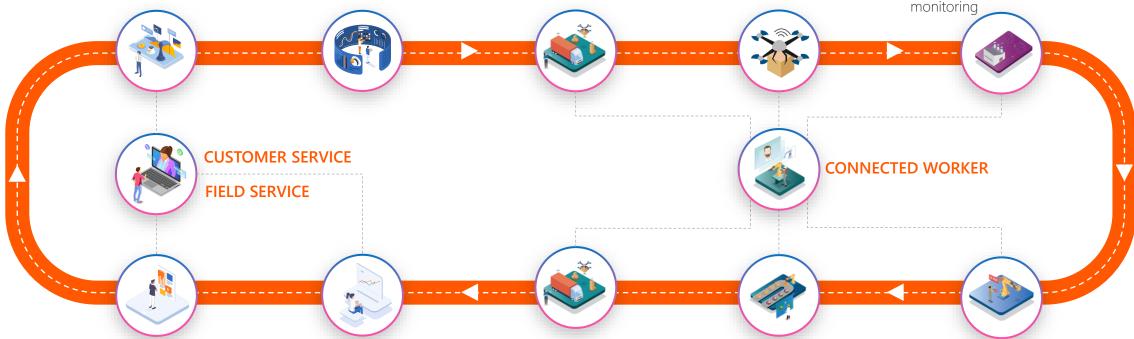
- IoT based Fleet Management
- Logistics tracking and optimization

Inventory Management

- Computer Vision, RFID, Bluetooth
- Real-time inventory management and tracking

Digital Twin Asset Monitoring & Management

- Asset reference and telemetry data collection
- Real-time and historical asset monitoring



Customer

- Connected Field Service
- Customer Service Virtual Agent
- Product usage information
- Social Sentiment Analysis
- Brand Loyalty

Channel

- Market, Customer, and Channel Segmentation
- Demand Forecasting
- Channel Management

Outbound Logistics

- IoT based Fleet Management
- Logistics tracking and optimization

Quality Assurance & Optimization

- Computer vision-based, real-time defect monitoring
- Process & Product Quality Optimization
- Intelligent quality inspections

Cognitive Asset Optimization

- Machine Learning driven anomaly detection and predictive maintenance
- Real-time, data driven, proactive asset maintenance



Intelligent Manufacturing: Select Use Cases

While the lifecycle has many facets, we accelerate time to value by leveraging re-usable assets powered by the Microsoft stack and Azure Databricks (see our <u>Brickbuilder solution</u>)

Use Case	How Avanade Can Help	Value Delivered
Inbound and Outbound Logistics	Improve forecasting and supply chain simulation	+ 10-15% increase in forecast accuracy
		+ Up to 30% reduction in inventory
Inventory Management	Deliver real-time product visibility from warehouse to store	+ Improved profit margins
		+ Efficient and agile demand processes
Digital Twin Asset Monitoring & Management	Access production asset operational telemetry data in near real-time	+ 10-20% reduction in inspection costs from equipment monitoring
		+ Reduction in utility costs by optimizing energy and water consumption &
Cognitive Asset Optimization	Predict and prevent safety incidents, expensive unscheduled downtime, and catastrophic equipment failure	+ 30% in maintenance cost savings
		+ 80% fewer asset/equipment breakdowns
		+ 70% reduce in overall unscheduled downtime
		+ Reduction in beyond-repair waste 🕹
Quality Assurance & Optimization	Detect defects and anomalies in real-time, at each station along the production line	+ 30-40% reduction in operational costs
		+ Significant increase in production quality
		+ 15-20% reduction in scrap material 🚓



Digital Twin of a Factory

A digital representation of a factory

that leverages information from previously disconnected systems to optimize assets, production lines, and manufacturing processes

EXAMPLE BUSINESS AND SUSTAINABILITY OUTCOMES

10% - 15% Improve Asset Utilization

10% - 15%
Increase production volume

10% - 20%
Reduction in materials & waste ♣

10% - 20%Reduce GHG emissions 🖧



Intelligent Factory 12-Week MVP

Unlock more from your data to help make accurate and improved key business decisions. Our staged delivery approach has been delivered, proven, refined and enhanced based on many large global enterprise clients and is a great way to **get started**

- Discover
 Pick the priority
 Use case(s)
- 2 "Light up" plant
 Implement IoT to
 collect operational data
- Implement Optimizers
 Integrate, monitor, analyze
 and take action
- Add new use cases, lines, & factories

Start with "Lighting Up" one machine, on one line, at one factory focusing on one factory optimizer

How we do it

- **01. Connect to data sources, controllers, and IoT sensors** to collect required tag and telemetry data
- **O2. Deploy IoT Edge Gateway** to process and aggregate controller and sensor telemetry data



- **03. Ingest and Process** data in near real-time with Azure IoT services to feed intelligent factory optimizer models, e.g., predictive maintenance
- **04. Deploy Analytics and Data Visualizations,** like dashboards, reports and 3D digital twins



Intelligent Factory 12-Week MVP

What we will deliver	Typical outcomes	Typical delivery timeframe
Starting with one machine, on one line, at one factory focusing on one factory optimizer	Depending on the optimizer, common outcomes include: • Improved asset utilization	12-Week MVP with ability to provide ongoing support to scale to the next set of assets, production lines, factories and
Intelligent Factory Architecture: Cloud-based centralized architecture, to capture telemetry and asset data storage	 Increased production volume Reduced materials usage & waste Reduced GHG emissions Extended asset useful Life Reduced in energy costs 	additional use cases
Near Real Time Access: Near real-time access to production asset operational telemetry data		
Intelligent Factory Application: Analytics and data visualizations (dashboards, reports, 3D twins)		



Avanade is the global market leader in building innovative Microsoft solutions

As a joint venture, formed in 2000 by Accenture and Microsoft, Avanade brings the best in Microsoft capabilities. With unique industry insights, unrivaled expertise and breadth of services, our 60,000 people do what matters for our clients and their customers every day.



60,000

Skilled and diverse professionals – **29%** of whom are women



60,000+

Microsoft certifications, more than any other partner



10,000

Projects with 4,000+ global clients since inception



18

Gold Partner Competencies

Highest level of Microsoft partnership across all 18 competencies



82

Locations across **26** countries



17x

Winner of Microsoft Global SI Partner of the Year



We're recognized as the number 1 Microsoft partner

By Microsoft

Winner of the 2022 Microsoft Global SI Partner of the Year for the 17th time

- Dynamics 365 Customer Insights & Marketing Partner of the Year
- Dynamics 365 Customer Service & Field Service Partner of the Year
- Manufacturing & Supply Chain Partner of the Year
- Country Partner of the Year: Austria, Chile, Denmark, Poland, Singapore, Spain, Sweden

Zero trust champion – Microsoft Security Excellence Awards 2022

Microsoft Global Partner for Microsoft Security Services for Enterprise

By the ecosystem

Delivering technology solutions that drive innovation, better workplaces, flexibility and security

a databricks

- 2022 Databricks Global Partner of the Year
- 2022 Databricks EMEA Partner of the Year

SITECORE

Partnering Excellence Sitecore Partner Award, 2022

- Named Sitecore's Global Partner of the Year, 2021
- Sitecore Experience Award Winner 2021

By the market

Recognized as the global market leader for implementing Microsoft Services



- 2021 IDC MarketScape: Named to the Leaders Category in Worldwide Microsoft Implementation Services
- 2021 IDC MarketScape: Named Leader for Asia Pacific Microsoft Dynamics 365 Implementation Services
- 2020 Leader IDC MarketScape: Worldwide Digital Workspace Services

FORRESTER®

Named Leader in Nov 2021 Forrester Wave: Microsoft Business Applications Services Evaluation



Named Leaders in Everest Group's PEAK Matrix for Microsoft Dynamics 365 Services



We power the Accenture Microsoft Business Group

A unique 360° relationship developed over decades to help clients achieve more with innovation



20+ Years of partnership



32,775
Projects
delivered



5K+
Clients served



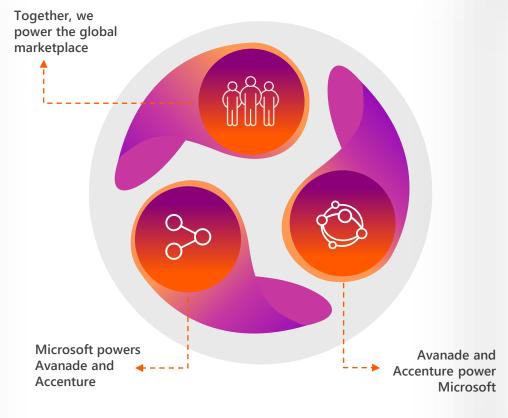
Microsoft-skilled resources



Industries served



Avanade, Accenture, and Microsoft Combined



As the #1 Microsoft strategic partner

we unlock the value of cloud and drive transformative business outcomes at speed and scale for our clients

Avanade + Accenture + Microsoft: Why us

- We are "doubling down" on our success as unique partnership in the marketplace, bringing together more than 65,000+ professionals from Avanade and Accenture
- O2 Commitment from the top: our CEOs meet on a regular basis to align on most pressing client priorities
- We jointly develop cutting-edge go-tomarket offerings that are born in the cloud
- O4 Clients have direct access to Accenture's industry and solution teams as well as Microsoft engineering



Deepest Microsoft skills and innovation

accenture

Unrivaled business and industry insights



Trusted, complete enterprise platform



We work with the **Microsoft Manufacturing experts**



Commitment to innovation

- 20 years dedicated to Microsoft
- Microsoft Alliance Partner of the Year for 17 consecutive years
- 2022 Microsoft Manufacturing Partner of the Year and Finalist for Automotive Partner of the Year
- Joint investments in industry innovation with Microsoft and Accenture
- Manufacturing thought leadership
- Partner and industry solution accelerators
- Global network of innovation hubs digital studios



46%

of Global 500

companies are

clients

















Pollux









ARR































Contacts:

David Gormley

<u>David.Gormley@avanade.com</u>

Tim Groulx <u>Tim.Groulx@avanade.com</u>



