

Capitalizing on Edge Computing in Manufacturing

ABOUT THIS INFOGRAPHIC

IDC surveyed 128 edge computing decision makers to capture the state of edge initiatives within manufacturing, with a focus on where edge is being utilized, the benefits, who funds and makes decisions, and the top selection criteria of providers in the space.

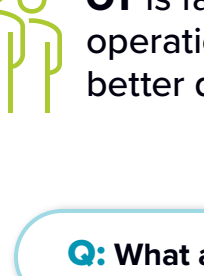
The Push for Edge Computing



Manufacturing resiliency relies on data for rapid and effective decisions.



Edge computing lets manufacturers collect, process, and/or store data at or near the location where the data is generated.

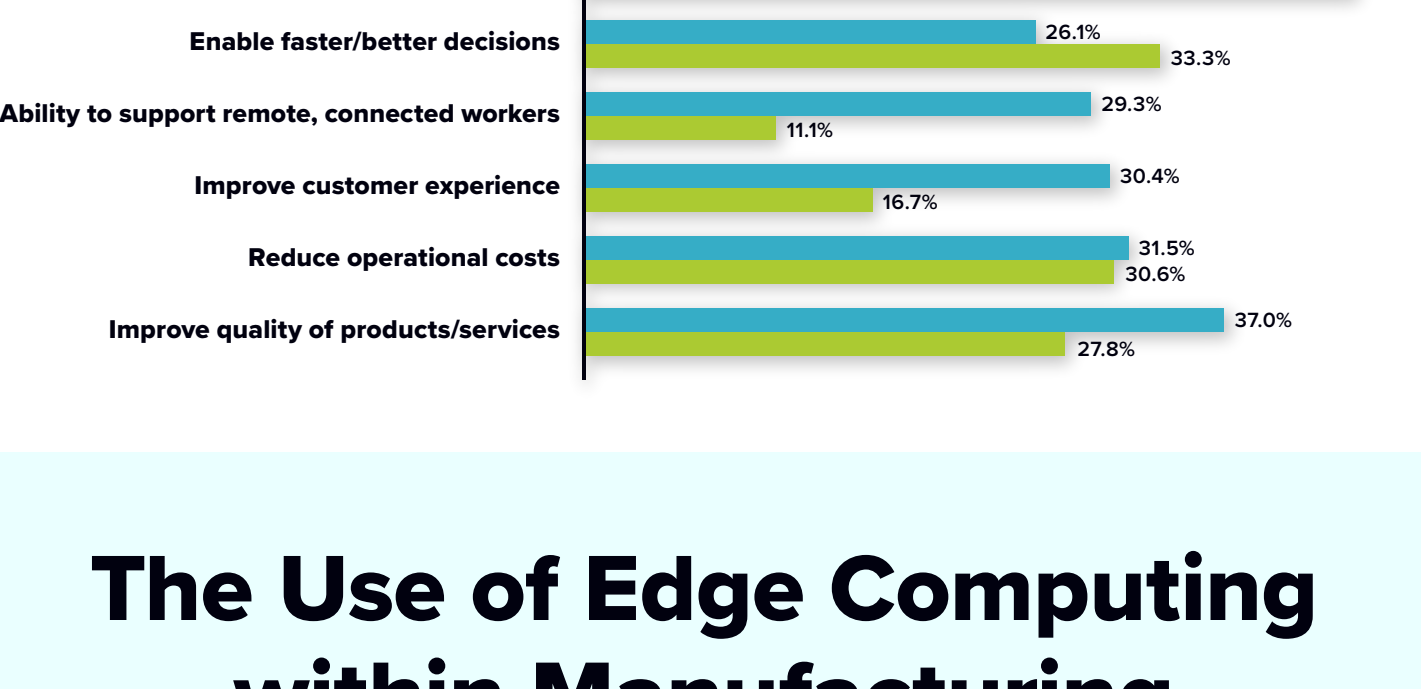


IT/OT departments are converging, and these two groups agree that edge is essential to any connected factory program.

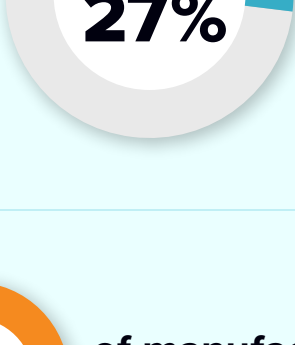
OT is far more focused on operational efficiency and better decision making.

IT is focused on customer experience, remote connectivity, and product/ service quality.

Q: What are your organization's top 3 expected benefits from edge computing?



The Use of Edge Computing within Manufacturing

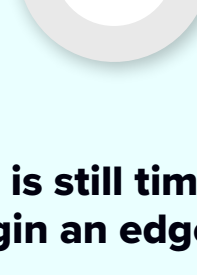


Only **27%** of manufacturers state that edge computing is currently in production

However, within the next 2 years...



56% of manufacturers will kick off pilots



17% of manufacturers will move pilots to production

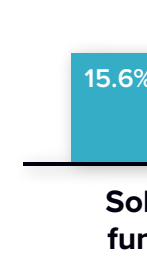
KEY TAKEAWAY: There is still time for any manufacturer to begin an edge initiative.

Find the best use case or outcome(s) desired.

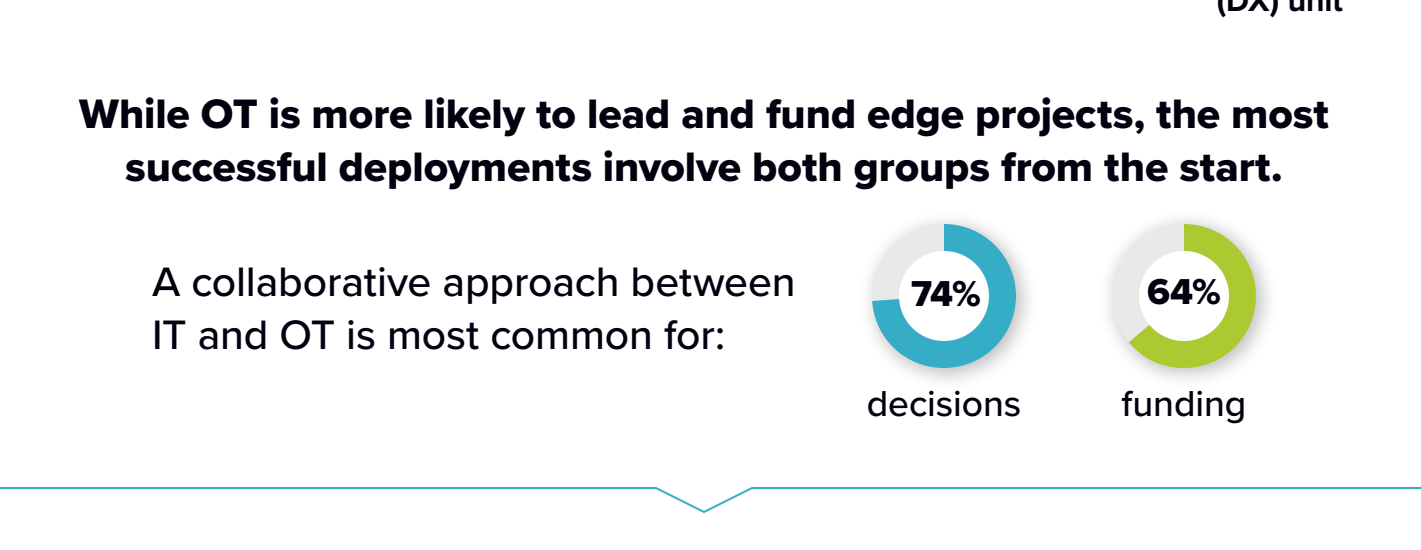
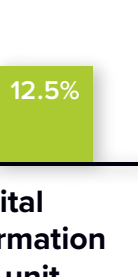
Data collection and asset tracking are currently the most popular edge apps, but many areas of manufacturing can benefit, with field service and labor management seeing the highest growth over the next 2 years:



A Tale of Two Stakeholders

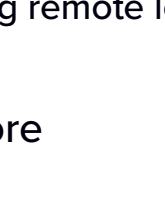
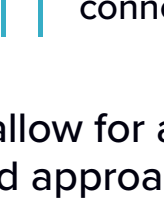


Edge success relies on the people involved in the project. Carefully consider who to include when starting a pilot.



While OT is more likely to lead and fund edge projects, the most successful deployments involve both groups from the start.

A collaborative approach between IT and OT is most common for:



From a motivation perspective...

OT is more driven by the need to merge data and ensure resiliency/reliability.

IT is far more focused on analytics on the edge and connecting remote locations.

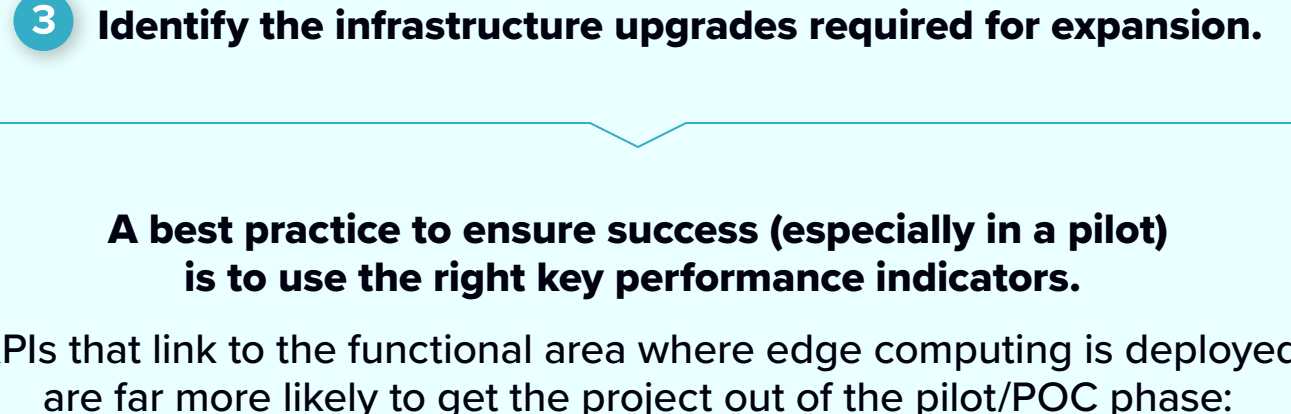
These respective viewpoints allow for a more balanced and well-rounded approach.

In fact, manufacturers that use IT and OT teams were **47% more likely to see their edge pilots move into full production.**

Avoiding Pilot Purgatory

Getting stuck in the proof of concept (POC) phase is a challenge for many manufacturers.

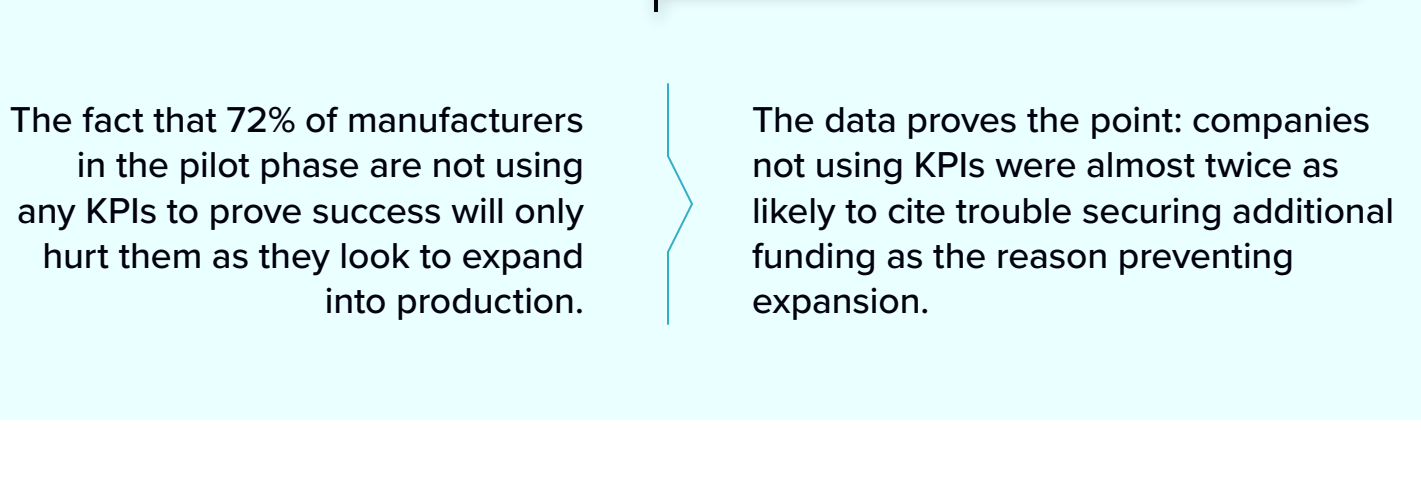
The most common reasons cited are:



- Put a clear plan in place for edge deployments.
- Factor in all security risks.
- Identify the infrastructure upgrades required for expansion.

A best practice to ensure success (especially in a pilot) is to use the right key performance indicators.

KPIs that link to the functional area where edge computing is deployed are far more likely to get the project out of the pilot/POC phase:



The fact that 72% of manufacturers in the pilot phase are not using any KPIs to prove success will only hurt them as they look to expand into production.

The data proves the point: companies not using KPIs were almost twice as likely to cite trouble securing additional funding as the reason preventing expansion.

Selecting the Right Partners for Edge Success

When building out an edge initiative, picking the right partners is important. It takes both edge computing providers and cloud providers working together to ensure long-term success.

Top edge computing provider selection criteria:

- Integration and connectors with current infrastructure 31.3%
- Proven security capabilities 28.9%
- Deep expertise in industry sector 28.1%
- Existing edge deployments/ referencing cases/proof points 25.8%
- Innovative offerings that help organizations transform themselves ... 25.8%

Top cloud service provider selection criteria:

- Provides both infrastructure and applications 30.5%
- Innovative offerings that help organizations transform themselves ... 29.7%
- Integration and connectors with current infrastructure 29.7%
- A large (top 5) provider in the relevant market 28.9%
- Deep technological expertise, e.g., certified staff 25.0%

The industrial environment is changing faster than ever. Edge computing will play an important role in any manufacturer's connectivity strategy.



The complexity of the edge journey can make many organizations hesitate, but manufacturers should rely on a combination of IT and OT to determine which functional areas of their business will benefit from edge computing and craft the proper KPIs to demonstrate success.

Message from the Sponsors

Lumen is a leader in the manufacturing space serving companies across the globe. We provide technology, edge, and security solutions to enable connected factories and an agile supply chain.

Microsoft helps transform your manufacturing from the shop floor to your customer's door—delivering improved outcomes with product-as-a-service and cloud solutions.

See how we partner together to provide innovative solutions for the manufacturing industry