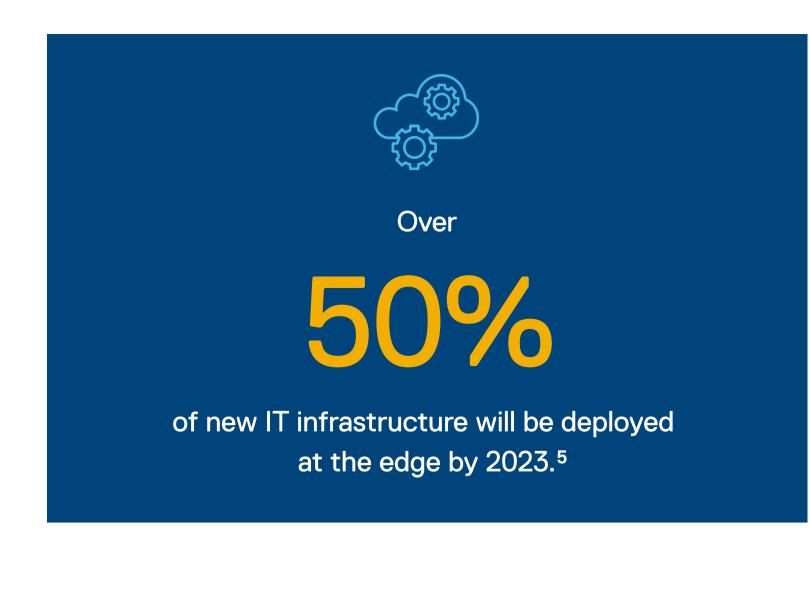
State of the Manufacturing Edge

Edge computing is gaining momentum across industries

As a critical-enabler of high value technologies like AR/VR and 5G, edge computing is seeing substantial investment across the enterprise landscape. In the near-future, IT infrastructure and operations will be increasingly deployed at the edge, delivering new levels of low latency, security, scalability and more.



of new operational processes will be deployed on edge infrastructure by 2024, up from 20% today.4

edge future

Manufacturing's

are being widely deployed in factories around the world. Exclusive studies conducted by 451 Research, part of S&P Market Intelligence, and Vanson Bourne Omnibus show rapid transition along with some persistent challenges.

After years of anticipation, industry 4.0 technologies powered by edge computing



REAL-TIME AUTOMATED DECISION MAKING

of Manufacturing IT executives expect

it to be a reality in 3-5 years.¹



of Manufacturing IT executives expect

to see this shift in 3-5 years.1



MORE SECURE IOT DATA

of Manufacturing IT executives expect edge to strengthen security in 3-5 years.1



86%

of Manufacturing IT executives expect cheap,

ubiquitous sensors in 3-5 years.1

decision-making vs. the cloud are key drivers behind its deployment.

HIGHLIGHT

Edge computing's capacity to support and secure vast networks of IoT sensors, as well as deliver faster

Key Adoption Concerns

SECURITY, PRIVACY, LACK OF EXPERTISE TO **DIFFICULTY MANAGING AND REGULATORY ALIGN BUSINESS GOALS** IT ACROSS MULTIPLE **COMPLIANCE WITH SOLUTIONS ENVIRONMENTS** 56% 44% **OPERATIONS TEAM** of Production Managers are concerned about this. 56% 53% 44% **IT TEAM** of IT Managers are concerned about this.

HIGHLIGHT

While the benefits of edge computing are widely accepted, access to purpose-built edge solutions and specialist

expertise will be crucial in accelerating its adoption.

Production/manufacturing monitoring 15% 59%

What are the leading use cases for the manufacturing edge?

Quality assurance

Deployed and planned manufacturing use cases.²

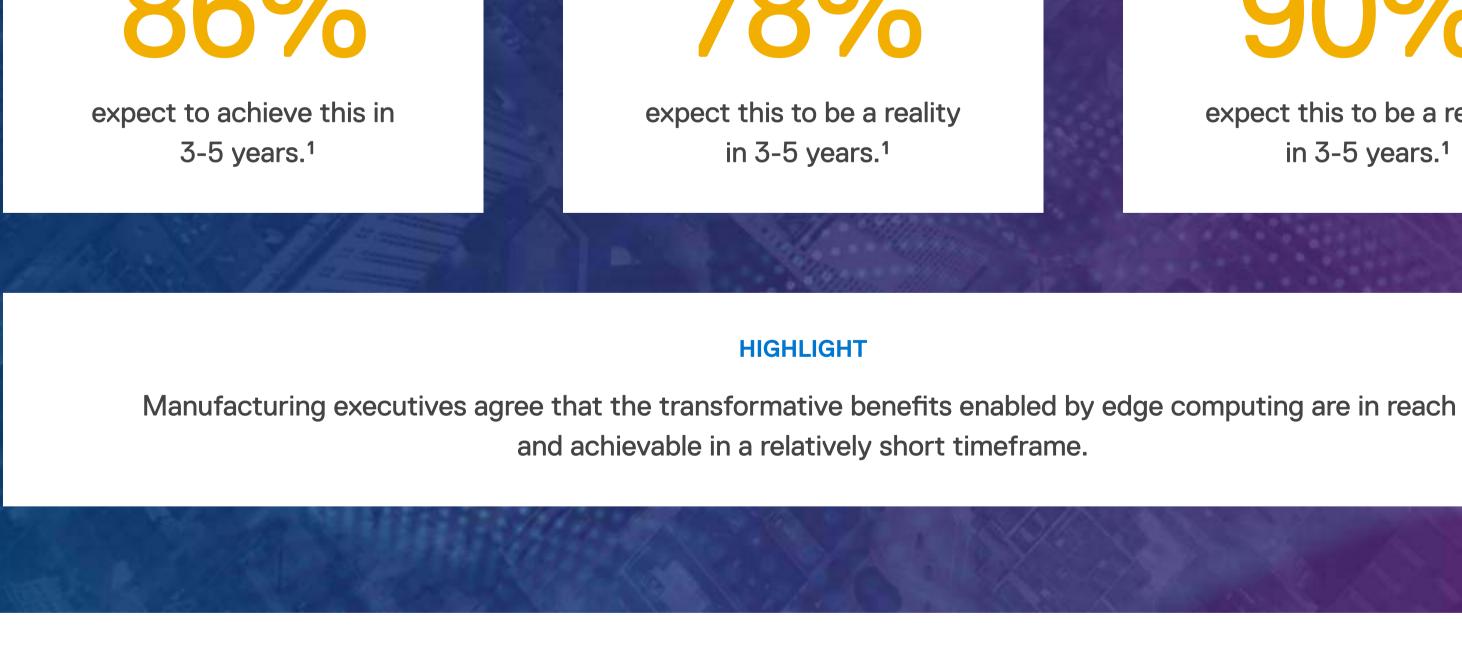
Inventory monitoring and management 19% 49% Intelligent logistics 22% 44% Predictive and condition-based maintenance 21% 41% ADDITIONAL PLANNED IN <2 YEARS DEPLOYED NOW **HIGHLIGHT** While edge computing impacts every industry, the manufacturing sector is set to spearhead some of its most exciting use cases, and set new standards for efficiency, quality and productivity.

50%

100% ACCURATE MACHINE IMMEDIATE PRODUCTION LINE DOWNTIME PREDICTION ERROR IDENTIFICATION

How do the manufacturing executives expect the

edge to transform manufacturing in the near future?



expect this to be a reality in 3-5 years.1

HIGHLIGHT

and achievable in a relatively short timeframe.

78%

expect this to be a reality in 3-5 years.1

21%

HIGHLY PERSONALIZED PRODUCTS

AND CUSTOMER EXPERIENCES

90%

FASTER, BETTER SIMPLIFIED DATA **GREATER RELIABILITY** MANAGEMENT ENHANCES **DECISIONS ON THE AND RESILIENCE**

55% **OPERATIONS TEAM** of Production Managers expect edge computing to deliver this.

Edge's most positive impacts

56% **IT TEAM**

PRODUCTION OPERATIONS

HIGHLIGHT Production and IT managers see edge computing as a critical component in delivering business outcomes

of IT Managers expect edge computing to deliver this.

PRODUCTION FLOOR

44%

of increased operational efficiencies, reduced downtime, optimized yield and improved asset utilization.

D&LLTechnologies

insights and outcomes. Dell Technologies accelerates your path to smart manufacturing outcomes

with validated, end-to-end edge solutions that unify IT, OT, and the business.

We simplify your edge so you can focus on

research, May 2021 | 4. IDC FutureScape: Worldwide Future of Operations 2021 Predictions, IDC #US46929820 [idc.com], October 2020). | 5. IDC FutureScape: Worldwide IT Industry 2020 Predictions, Doc # US45599219, October 2019

Learn more about our Manufacturing Edge Solutions