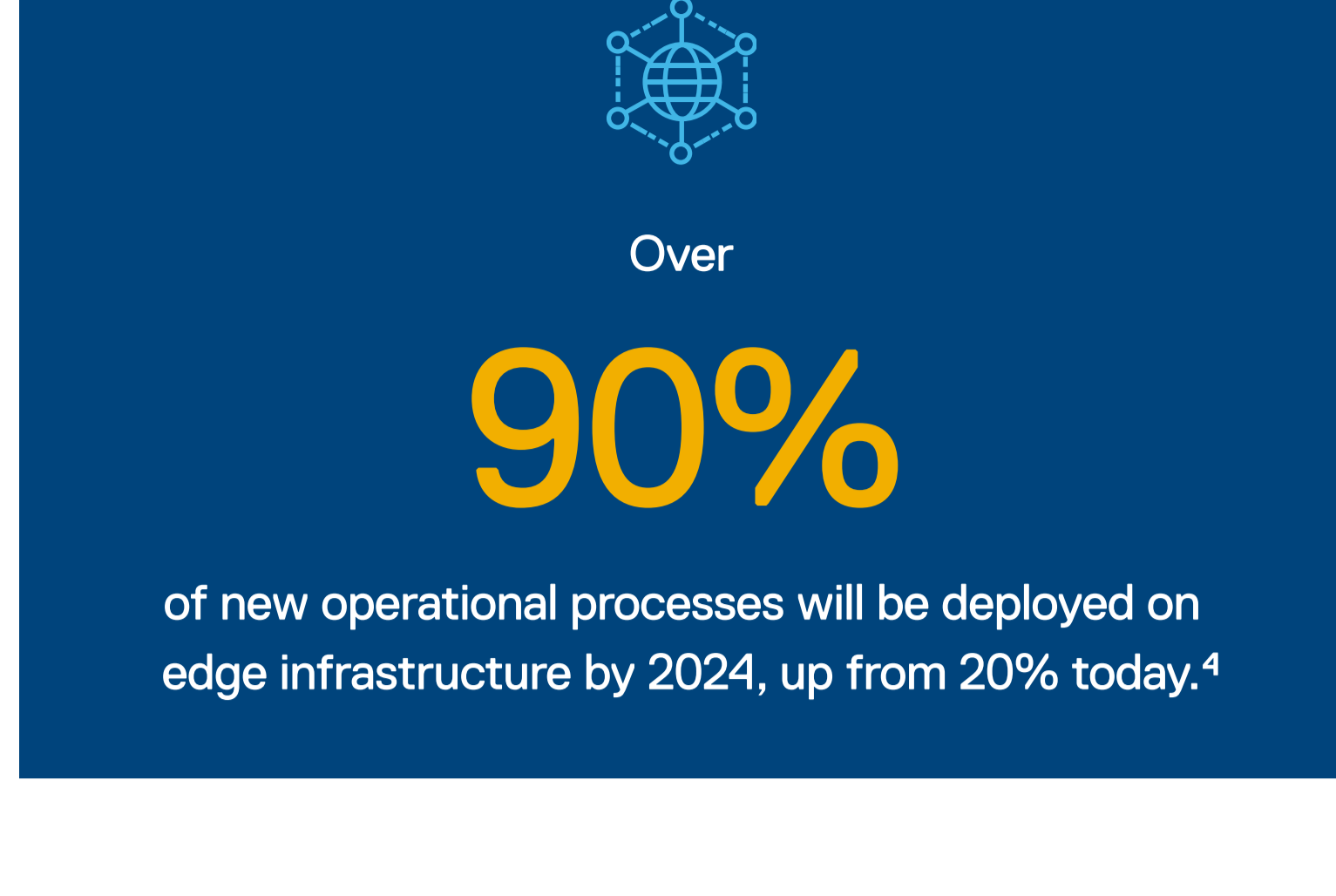
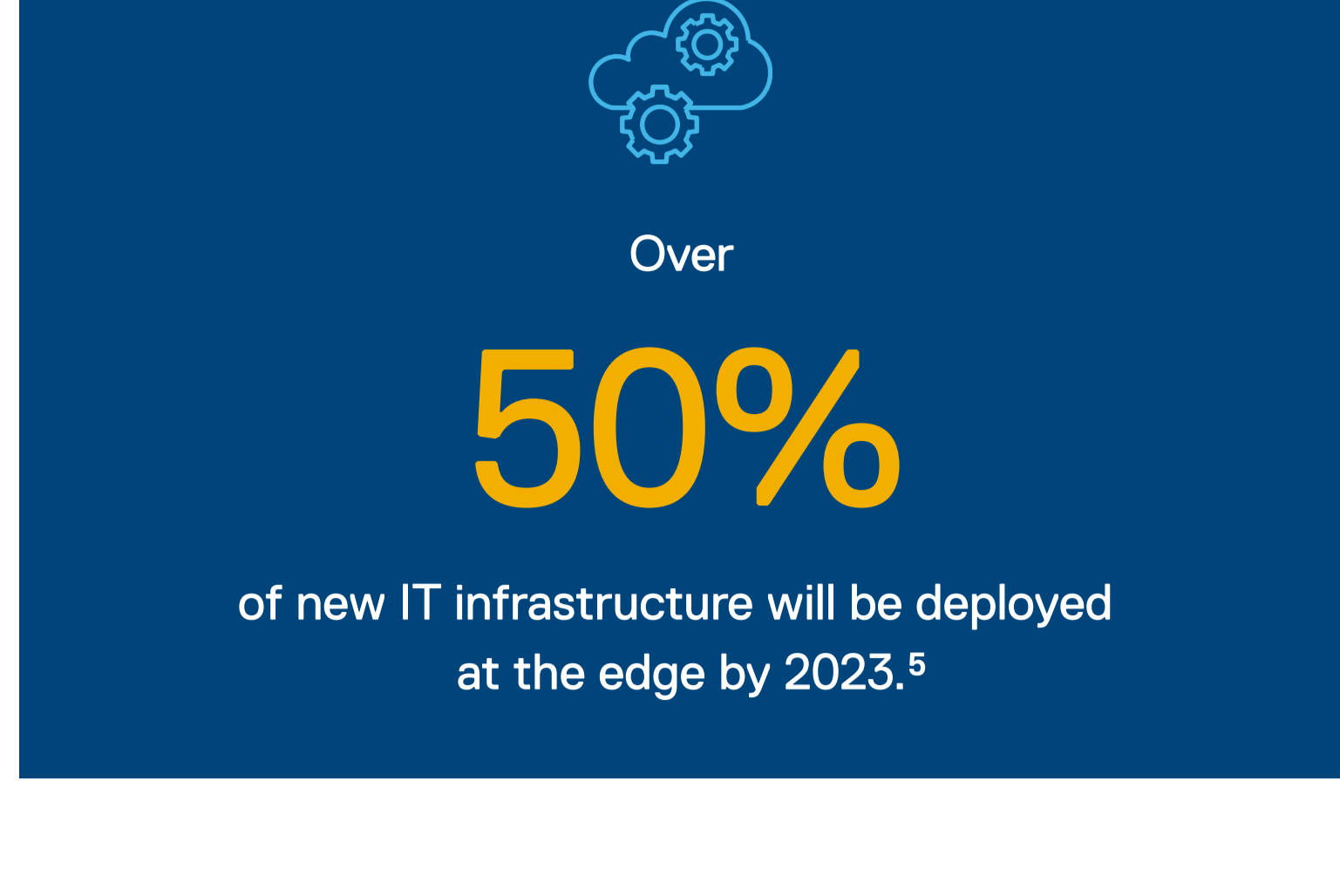


State of the Manufacturing Edge

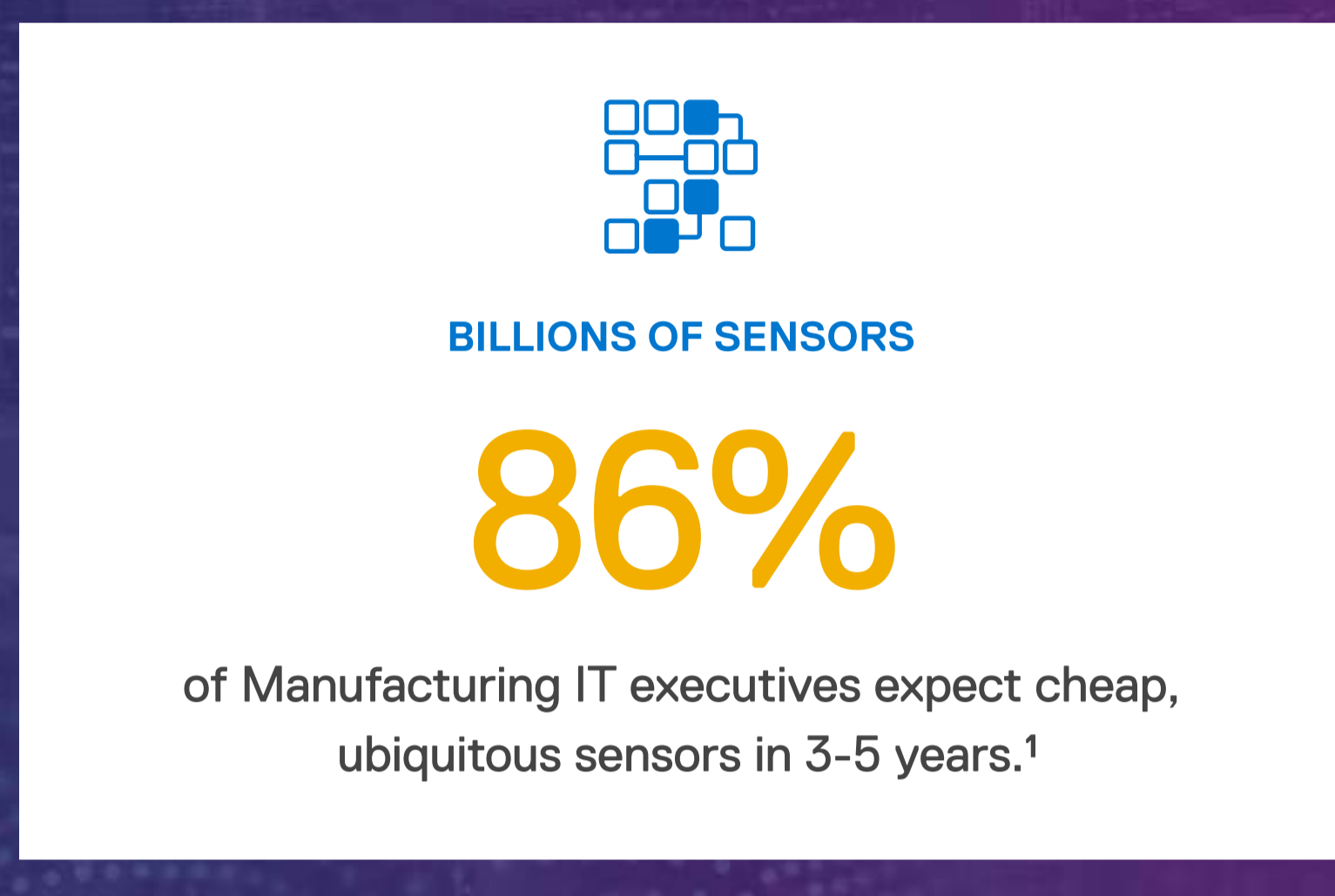
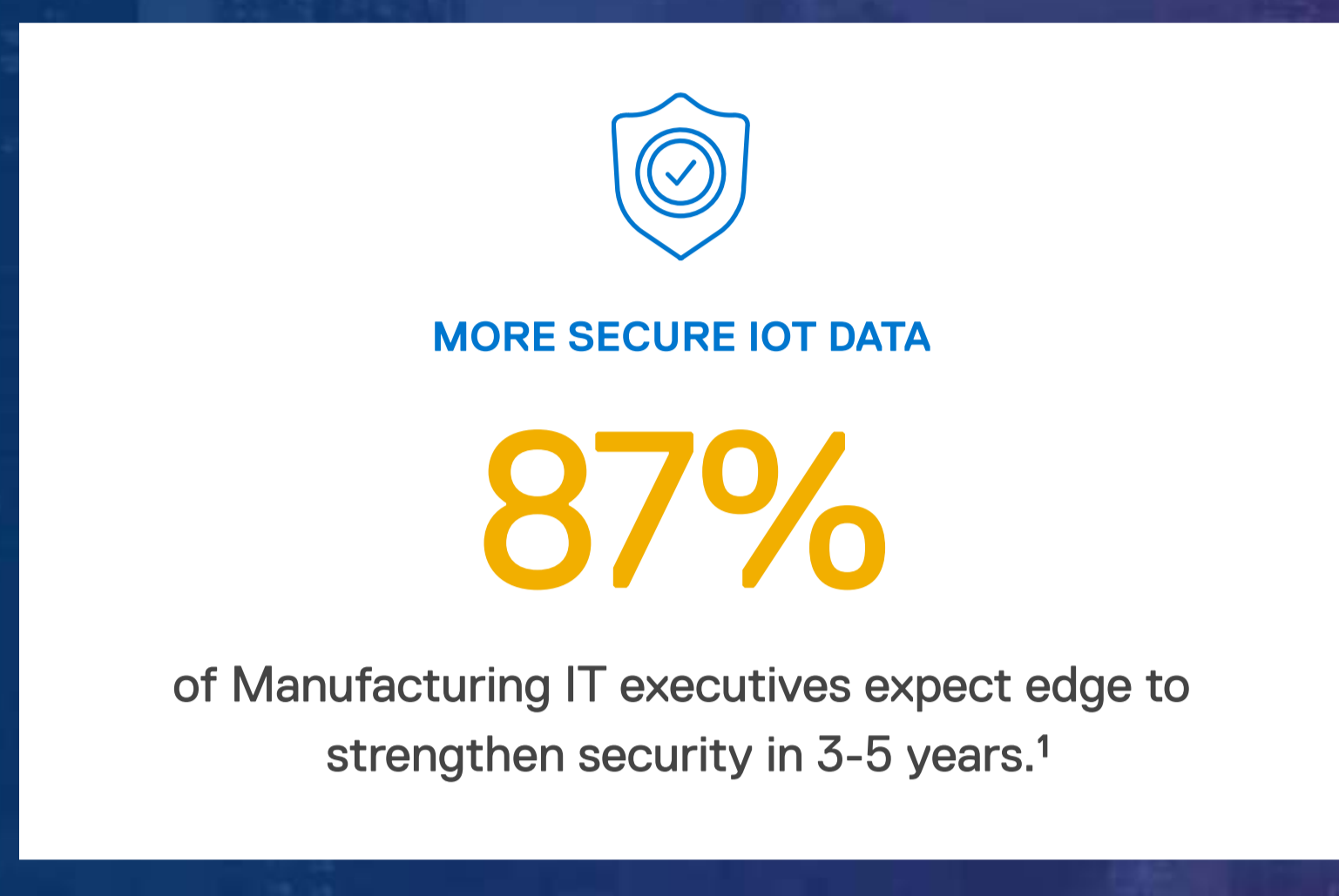
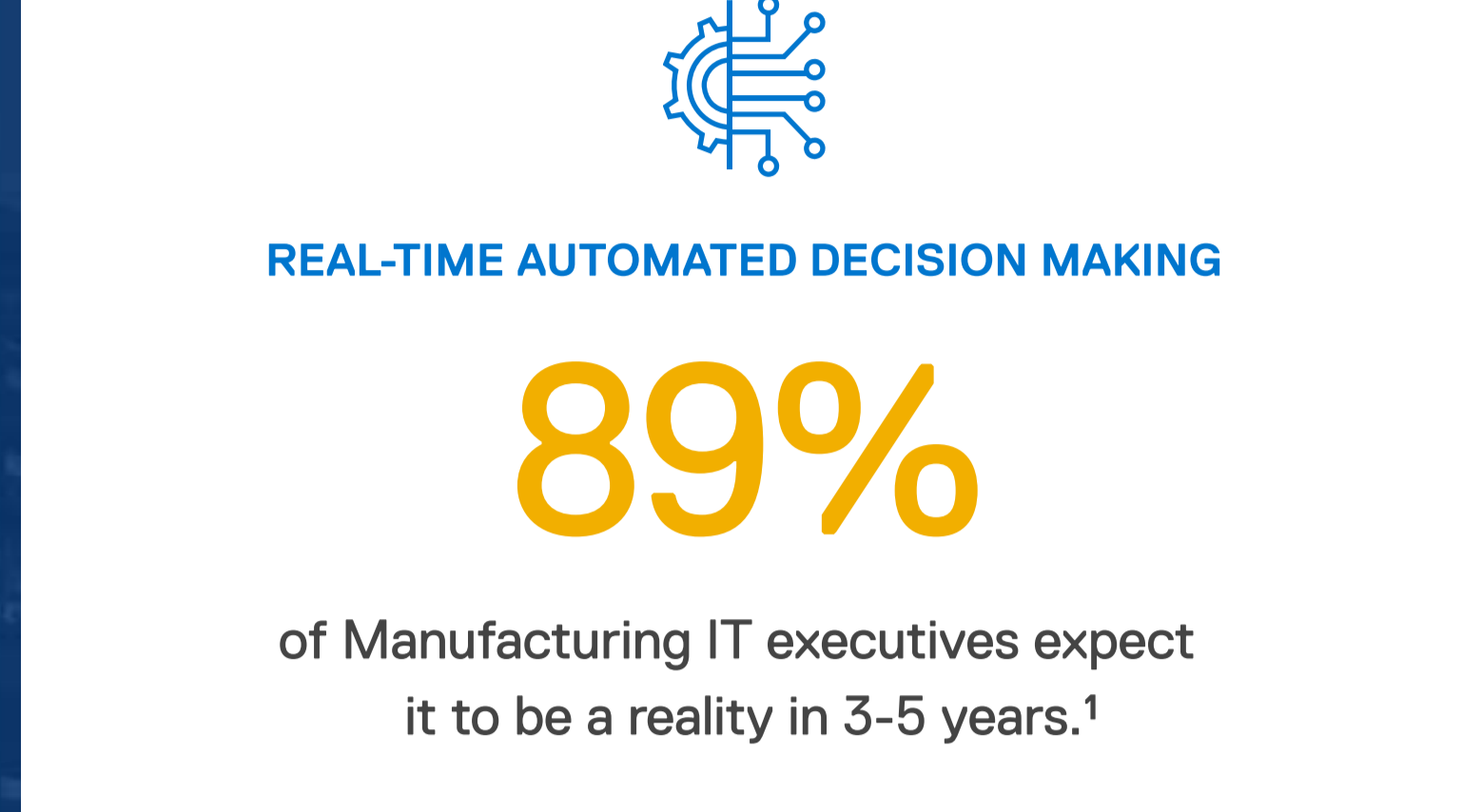
Edge computing is gaining momentum across industries

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.



Manufacturing's edge future

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



HIGHLIGHT

Edge computing's capacity to support and secure vast networks of IoT sensors, as well as deliver faster decision-making vs. the cloud are key drivers behind its deployment.

Key Adoption Concerns

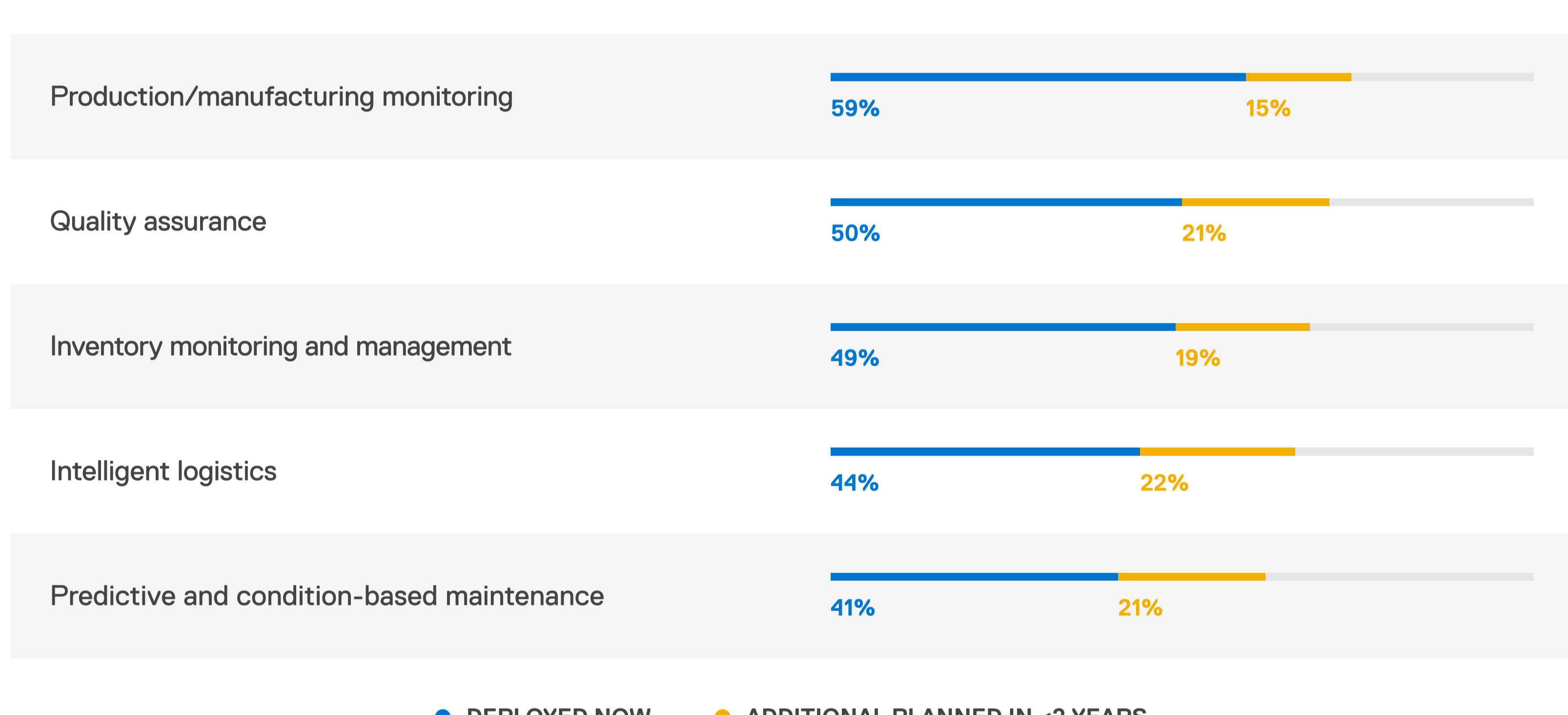
| | SECURITY, PRIVACY, AND REGULATORY COMPLIANCE | LACK OF EXPERTISE TO ALIGN BUSINESS GOALS WITH SOLUTIONS | DIFFICULTY MANAGING IT ACROSS MULTIPLE ENVIRONMENTS |
|-----------------|--|--|---|
| OPERATIONS TEAM | 44% | 56% | 47% |
| | of Production Managers are concerned about this. | | |
| IT TEAM | 56% | 44% | 53% |
| | 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.

What are the leading use cases for the manufacturing edge?

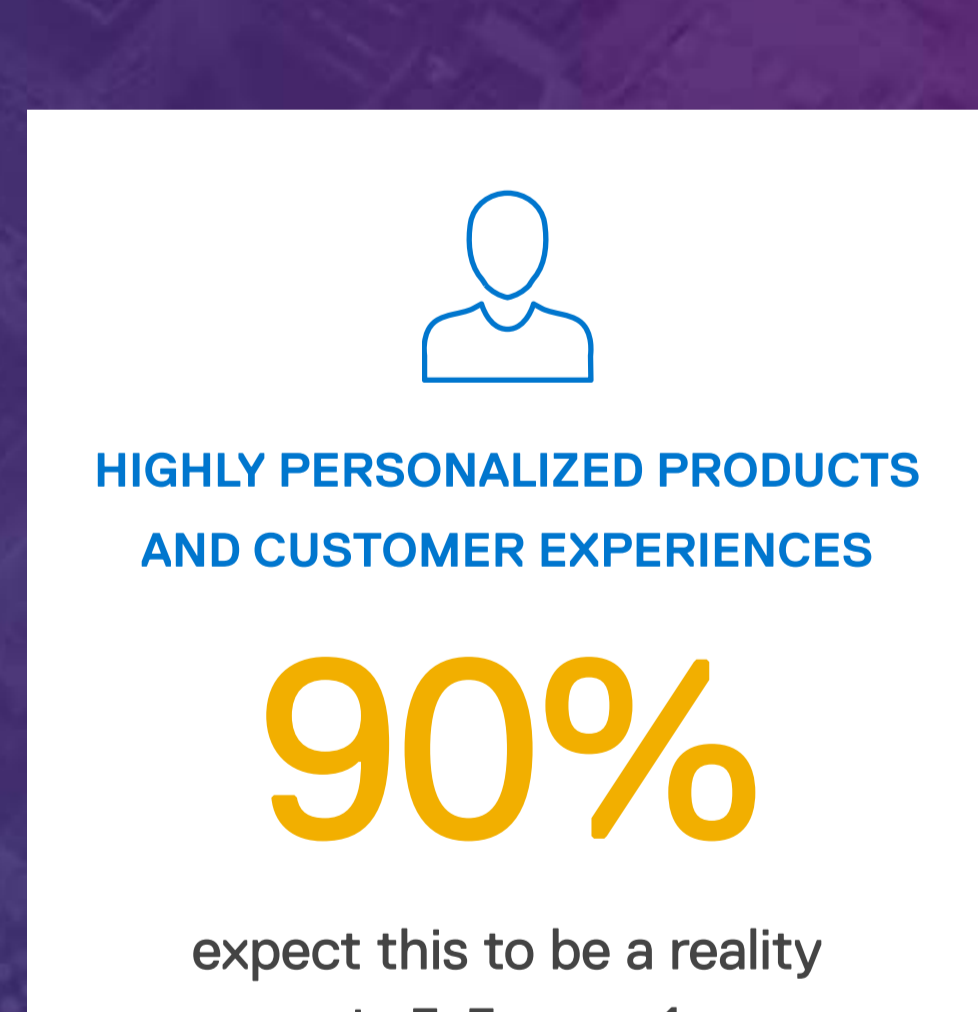
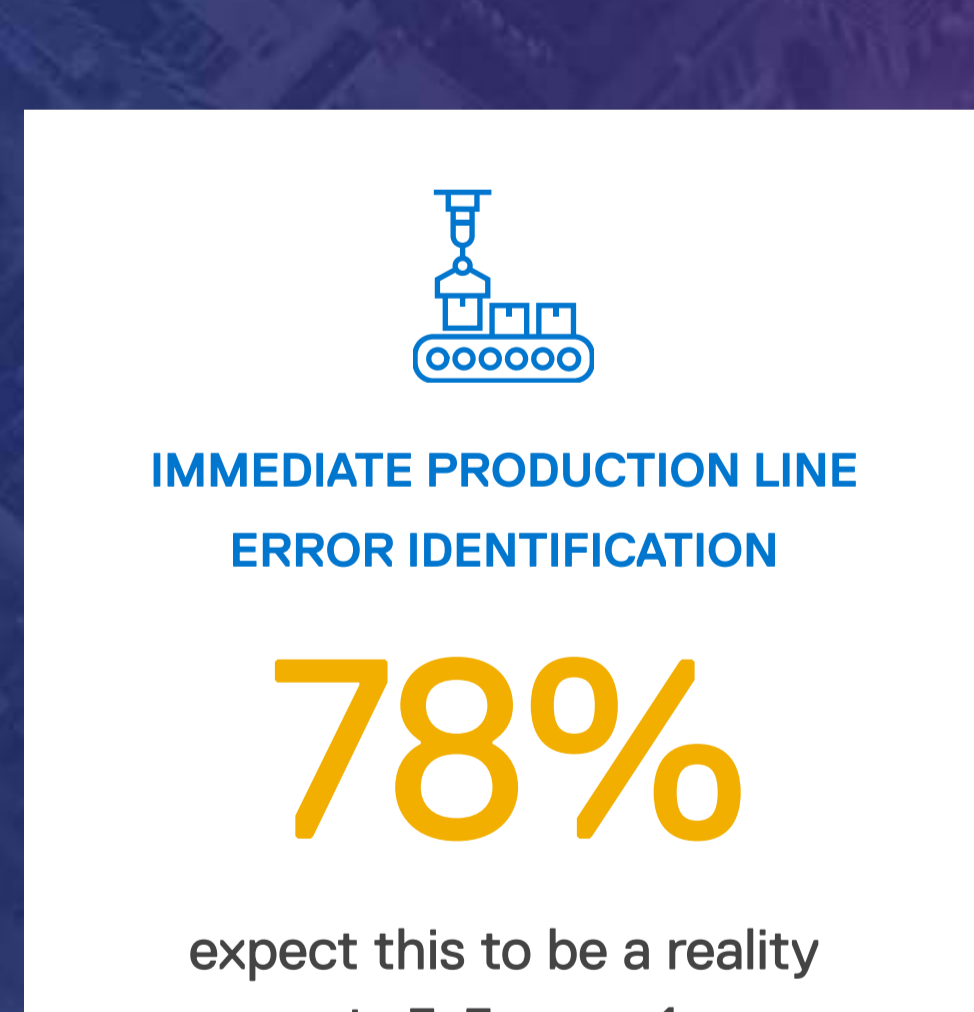
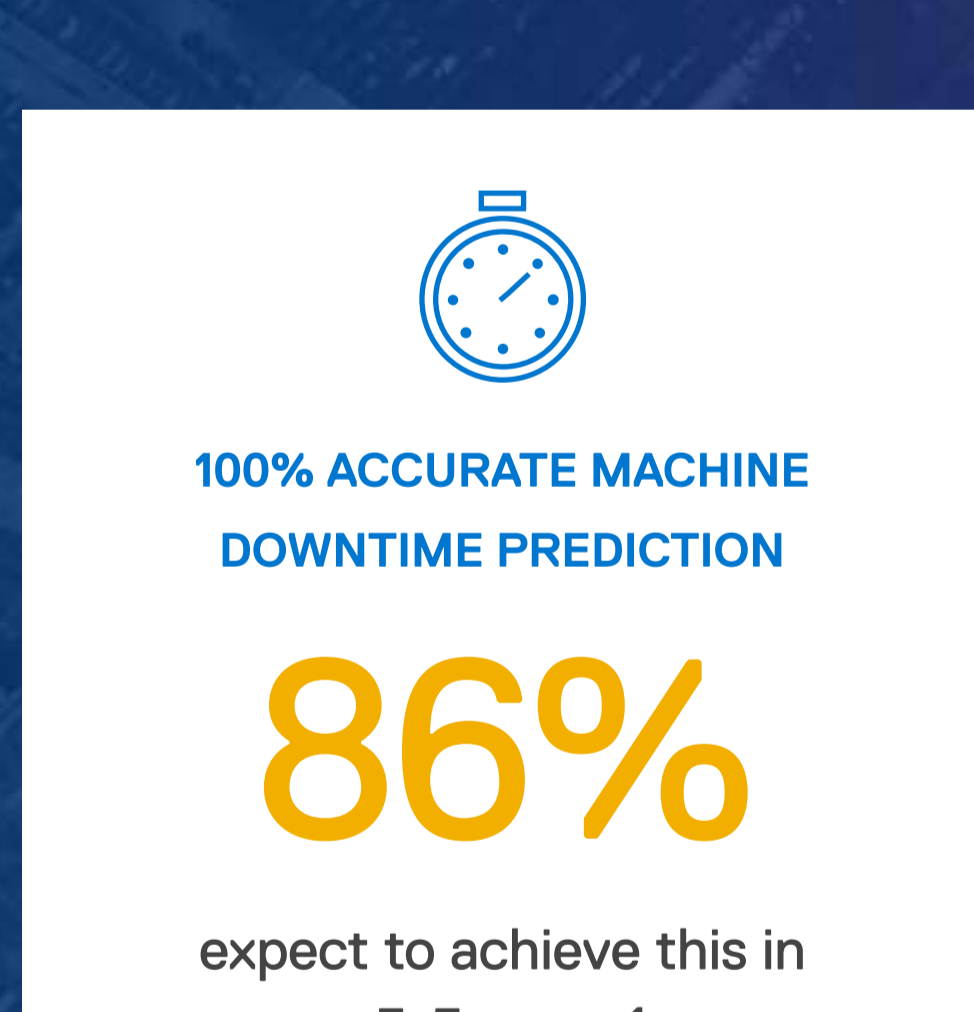
Deployed and planned manufacturing use cases.²



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.

How do the manufacturing executives expect the edge to transform manufacturing in the near future?



HIGHLIGHT

Manufacturing executives agree that the transformative benefits enabled by edge computing are in reach and achievable in a relatively short timeframe.

Edge's most positive impacts

| | SIMPLIFIED DATA MANAGEMENT ENHANCES PRODUCTION OPERATIONS | FASTER, BETTER DECISIONS ON THE PRODUCTION FLOOR | GREATER RELIABILITY AND RESILIENCE |
|-----------------|---|--|------------------------------------|
| OPERATIONS TEAM | 55% | 44% | 45% |
| | of Production Managers expect edge computing to deliver this. | | |
| IT TEAM | 45% | 56% | 55% |
| | of IT Managers expect edge computing to deliver this. | | |

HIGHLIGHT

Production and IT managers see edge computing as a critical component in delivering business outcomes of increased operational efficiencies, reduced downtime, optimized yield and improved asset utilization.