ZEDEDA

REPORT

Edge AI Reaches an Inflection Point

83% of Enterprises Put Edge AI at the Center of Strategy as Organizations Shift Toward Autonomous, Agentic Operations



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83% said edge AI is important to their organization's core strategy

Edge AI is moving beyond experimentation and into core enterprise infrastructure. In ZEDEDA's 2026 survey of 600 IT and operational/business leaders across the U.S. and Germany, 83% said edge AI is important to their organization's core strategy, signaling a clear shift from isolated deployments to operational priority. This year's survey outcomes demonstrate that the focus is no longer whether edge AI matters, **but how quickly organizations are scaling it, funding it, and extending it toward more autonomous use cases.**



Edge AI Deployments Gain Momentum

Edge AI is already embedded across a broad set of production use cases. Computer vision leads the way, with 45% of organizations reporting it is currently deployed in production, followed by customer experience optimization at 45%, real-time monitoring and anomaly detection at 41%, energy optimization at 40%, and predictive maintenance at 38%. Autonomous systems and robotics are also gaining traction, with 33% reporting production deployment, alongside video analytics at 37% and edge data filtering and preprocessing at 36%.

Adoption is not limited to production. Across these use cases, many organizations are still in pilot or testing stages, with additional deployments planned within the next 12 months. That mix points to a market that is moving fast but still has room to expand across more environments and functions.

The breadth of these deployments matters. **Edge AI is no longer confined to a narrow set of industrial applications.** It is now supporting quality inspection, safety, loss prevention, real-time response, and customer engagement in parallel.

Edge AI Maturity Is Distributed Across Various Stages

Edge AI maturity is spread across multiple stages, showing a market that is progressing but not yet uniform.

29%
3 in 10 organizations report production deployments in select locations

19%
Have scaled production deployments across the organization

19%
Are in pilot deployments

21%
Remain in experimentation or proof-of-concept stage

12%
Report no active edge AI initiatives

The pattern is clear: edge AI is past the early hype cycle, but it has not reached the same level of maturity across the broader market. Production deployments are happening, but the path to scale still depends on readiness, infrastructure, and internal expertise.

Edge AI Spending Shifts to Core IT and Infrastructure Budgets

Edge AI investment is increasingly tied to core technology budgets and measurable business outcomes. The top funding routes are centralized IT or infrastructure budgets (30%), joint IT and business funding (28%), and line-of-business budgets (20%), while 18% still rely on innovation or pilot budgets. Only 5% say the funding model has not yet been defined.

Organizations are also measuring success more rigorously. Operational efficiency gains lead at 50%, followed by cost reduction at 45%, safety or risk reduction at 42%, revenue growth or new business models at 40%, and sustainability or energy efficiency at 36%. These outcomes clearly indicate that edge AI is being judged less as an experiment and more as an operating model.

Funding patterns also vary by organization size. Among companies with 250-500 employees, 39% say initiatives are funded through centralized IT or infrastructure budgets, compared with just 9% at companies with 1-9 employees.

Hybrid Architectures Drive AI Inference to the Edge

Organizations are redistributing AI workloads across cloud and edge environments to support real-time operations. Nearly half (47%) say they use a hybrid cloud-edge model, while 24% rely primarily on centralized cloud or data center infrastructure. Another 13% operate primarily at the edge, and 11% use an on-premises data center.

Hybrid adoption is especially strong among IT leadership and mid-sized organizations. That reinforces what the broader survey shows: **edge AI is not just a deployment choice, it is becoming an architecture decision.**

Organizations are measuring success more rigorously



50%

Operational efficiency gains



45%

Cost reduction



42%

Safety or risk reduction



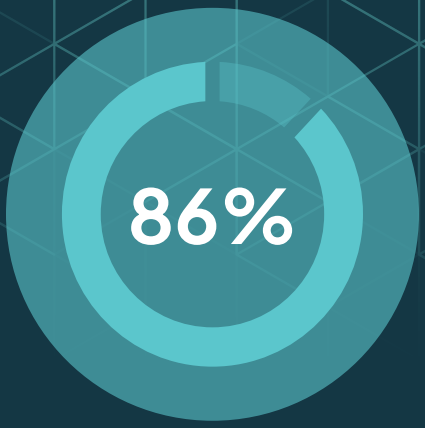
40%

Revenue growth or new business models



36%

Sustainability or energy efficiency



Among organizations with active edge AI deployments, **86% are pursuing agentic capabilities**

Agentic AI Emerges as the Next Phase of Edge Intelligence

Enterprises are already moving beyond reactive AI toward autonomous, goal-driven systems at the edge. Among organizations with active edge AI deployments, 86% are pursuing agentic capabilities. Half (50%) are in the research phase, 21% are piloting autonomous multi-step tasks, and 15% have already deployed autonomous agents in production.

This is the clearest sign yet that edge AI is entering its next phase. The focus is shifting from monitoring and prediction to systems that can coordinate actions and adapt in real time at the point of operation.

Security, Integration, and Complexity Remain Key Challenges

As deployments scale, organizations continue to face practical barriers. The most commonly cited obstacles are integration with existing systems (34%), security and governance concerns (32%), and a lack of internal skills or expertise (31%). Additional barriers include infrastructure management complexity, difficulty managing models at scale, unclear ROI, IT/OT silos, and hardware constraints.

Operational complexity is also an issue. Forty-one percent of respondents say it is challenging to manage AI workloads across distributed edge environments, and that strain is especially pronounced in the U.S. and among smaller organizations. The message is straightforward: the opportunity is real, but so is the complexity of operating at scale.

Methodology

This survey was conducted for ZEDEDA by Censuswide between February 20 and February 26, 2026. The study included 600 IT leadership and operational/business leadership respondents across the United States and Germany, including CIOs, CTOs, heads of IT, infrastructure, digital transformation, operations, manufacturing, supply chain, and related functions.





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About ZEDEDA

ZEDEDA unlocks the value of AI where it matters most, enabling enterprises to create, secure and operate edge AI at scale. ZEDEDA's Edge Intelligence products and solutions are used by global distributed enterprises to rapidly realize and deploy autonomous intelligence wherever they operate, turning real-time data into real and tangible business outcomes and decisions. Trusted by the world's largest organizations, ZEDEDA is backed by world-class investors, with teams in the United States, Germany, India, and the United Arab Emirates. For more information, visit www.ZEDEDA.ai.