



5G IS PAVING THE PATH TO REVOLUTIONARY AI PARADIGMS

Intel-powered 5G networks will open doors to the full potential of artificial intelligence (AI)—extending AI applications beyond the cloud to the network edge and closer to where data is created. Businesses that tap into distributed intelligence and new AI paradigms will unlock new and enhanced services, use cases, models, and economic growth to the tune of \$17.9 trillion in global GDP by 2035¹.

Three Phases of AI and 5G

1

5G Accelerates AI Deployments
• Improves user experience
• Enhances service performance
• Adds value to offerings

2

5G Distributes Intelligence
• Reduces latency
• Boosts personalized/private AI
• Simplifies tech complexity

3

5G Enables New AI Paradigms
• Introduces new device capabilities
• Enhances data security
• Transforms how AI is deployed

Short-term Opportunities are Powerful

By 2025, 5G and AI will enable a multitude of industries to improve productivity and deliver game-changing products and services.

\$3.1T in global GDP from direct, indirect, and productivity value by 2025¹

Manufacturing



Humans and robots make a perfect team, using their strengths and real-time data to solve problems and increase productivity.

Health



Doctors use connected devices for AI-powered patient monitoring that extends real-time, remote care to more people, increasing hospital efficiency.

40.8M global shipments of AI-enabled wearables by 2023²

Up to **10%** reduction in transportation costs by 2023³

Transportation



Municipalities use more accurate, real-time data from connected vehicles for software-powered road management that reduces transportation costs.

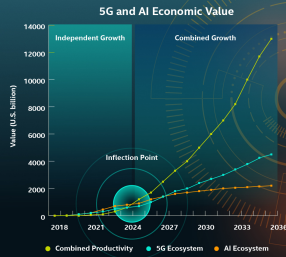
Media



Content owners deliver rich media that is localized and personalized, enhancing consumer experience and creating new revenue opportunities.

An Inflection Point Drives Explosive Growth

In 2028, the combination of 5G and AI will create massive productivity value that surpasses the value of each of their independent ecosystems.



Long-term Opportunities are Transformative

By 2035, 5G and AI will unleash economic growth across industries, unlock entirely new business models, and fundamentally change how the world functions.

\$17.9T in global GDP from direct, indirect, and productivity value by 2035¹

Manufacturing



Workers rely on flexible wireless factories that meet their needs and adapt in real-time for specific production tasks to shorten lead times and boost productivity.

Health



Doctors use collaborative training and edge devices to learn and master patient behaviors for highly personalized preventive care to improve outcomes and efficiency.

Nearly **14%** productivity boost in automotive and transportation sectors from technology innovation by 2035⁴

Transportation



Connected vehicles use ultra-precise 3D HD maps that enable driving software to better respond to unfolding events and plan optimal routes.

Media



Content creators proliferate stunning and innovative media experiences, using AI to personalize content and deliver immersive live VR with haptic mapping.

INTEL IS PAVING THE WAY FOR 5G & AI

Intel 5G networks are distributing the massive performance and intelligence of the data center from cloud to network to edge. Leveraging its rich heritage in cloud computing and AI, Intel works with leaders across telecom, cloud, IoT, and enterprise to define the 5G and AI solutions, open-source software, and standards-based technologies that enable our data-centric future.

Learn more in the report, 5G and AI: The Foundations for the Next Societal and Business Leap

Visit [Intel.com/5G](https://www.intel.com/5G).

CLoud, NETwork, EDge, 5G POWERED BY INTEL.

1 Intel and IBM Research, "5G and AI: The Foundations for the Next Societal and Business Leap," 2019.
2 Intel and IBM Research, "5G and AI: The Foundations for the Next Societal and Business Leap," 2019.
3 Intel and IBM Research, "5G and AI: The Foundations for the Next Societal and Business Leap," 2019.
4 Intel and IBM Research, "5G and AI: The Foundations for the Next Societal and Business Leap," 2019.