iShares
by BlackRock

2026 Thematic Mid-Year Update

WELCOME TO THE AI ECONOMY

Key takeaways

AI is becoming a whole-economy investment cycle. Our 2026 Thematic Mid-Year Update features **key charts** exploring how rapid advances in AI are spreading across industries, exposing physical bottlenecks and creating new sources of opportunity and risk.

1.

AI's value chain continues to expand as adoption deepens, but winners are beginning to separate amongst supply constraints

2.

Demand far exceeds supply at the physical layer, potentially opening new frontiers like space

3.

New technologies in robotics & healthcare could impact our daily lives, while AI & digital assets may reinforce each other through daily use cases

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Across sectors, one connected AI economy

01

BUILD INTELLIGENCE

Information technology

- Models
- Cloud
- Semiconductors
- Memory

02

POWER THE BUILDOUT

Materials, energy, utilities

- Critical materials
- Refining
- Power
- Grid

03

REACH THE PHYSICAL WORLD

Industrials

- Defense
- Space
- Autonomous systems

04

MOVE INTO DAILY LIVES

Consumer, health care, financials

- Robotics
- Mobility
- Diagnostics

AI doesn’t stay inside the sector where it started – what begins with compute travels through the physical economy, into businesses, and ultimately into new markets.

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Information technology

AI’s next phase is about putting it to work

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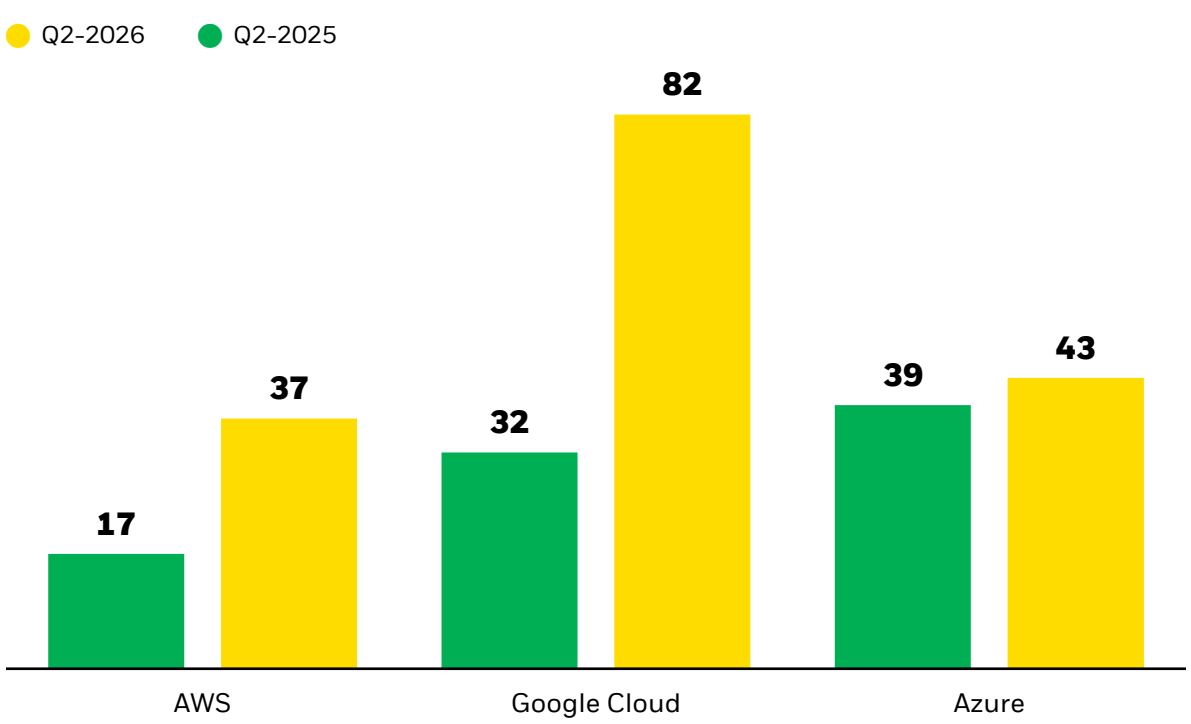
AI capex[1] has been increasingly translating into revenue

Cloud growth has been accelerating as AI infrastructure comes online and begins to monetize.

FASTER CLOUD GROWTH HAS BEEN BEGINNING TO SHOW THE REVENUE SIDE OF AI CAPEX...

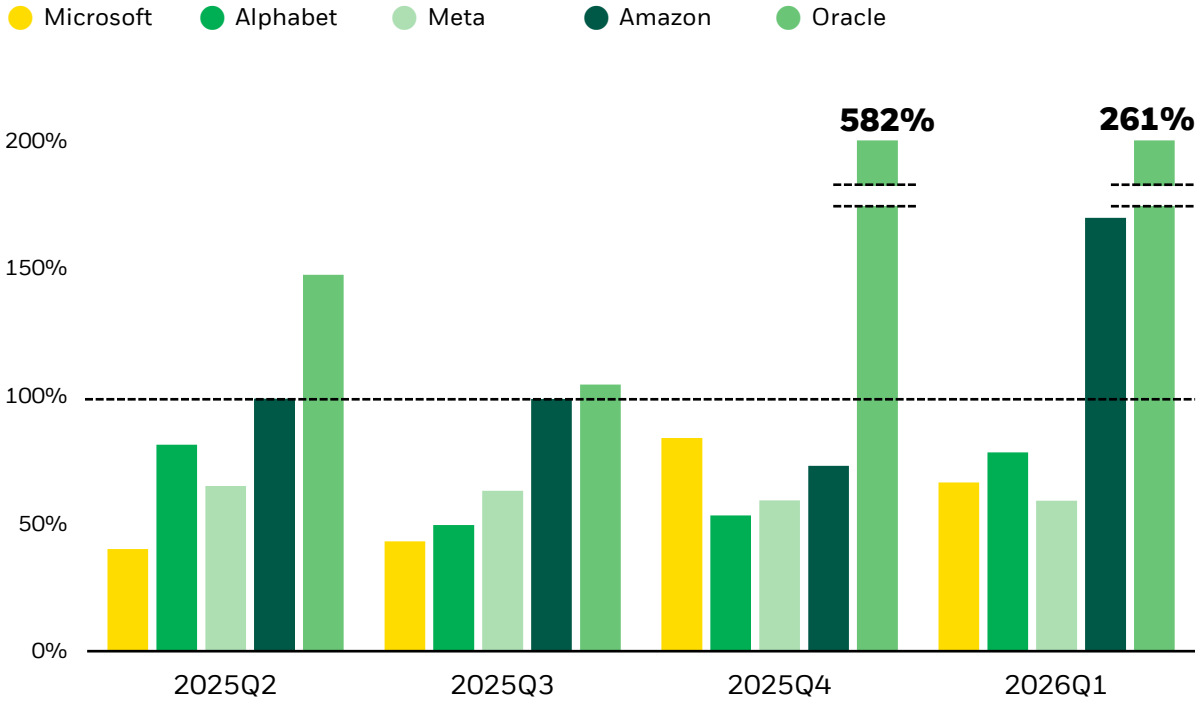
Year-over-year revenue growth (%)



Source: BlackRock analysis of Microsoft, Alphabet, Amazon Company Q2 2026 and Q2 2025 Earnings Releases, released July 22–30, 2026, Azure = "Azure & Other Cloud Services."

...EVEN WHILE CASH FLOW HAS BEEN TEMPORARILY PRESSURED BY THE NEXT WAVE OF INVESTMENT

Capex as % of operating cash flow, last 4 quarters



Source: BlackRock Investment Institute with data from company reports, May 2026. Notes: Capex calculated as operating cash flow minus free cash flow. Ratios above 100% indicate capex exceeds internally generated operating cash flow. Oracle fiscal quarters end in February, May, August and November.

1. Capex (Capital Expenditure) refers to investment in long-term assets for future growth or operational capability. Any reference herein to any security and/ or a particular issuer shall not constitute a recommendation to buy or sell, offer to buy, offer to sell, or a solicitation of an offer to buy or sell any such securities issued by such issuer.

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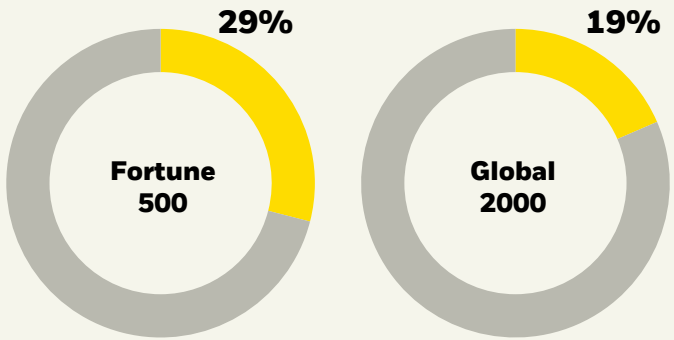
Enterprise AI is spreading in unexpected places

Enterprise AI[1] is scaling quickly, even in industries that have historically been slow to adopt new technology.

ENTERPRISE AI HAS SCALED QUICKLY SINCE CHATGPT'S LAUNCH[1]

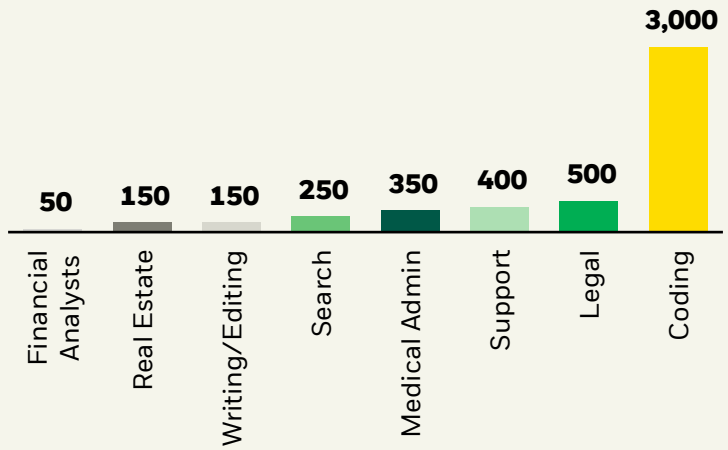


Source: A16Z News, "AI adoption by the numbers," 4/8/2026.The adoption levels shown were reached just over three years after ChatGPT launched in 11/2022.

THE SURPRISE ISN'T CODING...IT'S WHERE AI IS ALSO GAINING TRACTION

Legal and healthcare, historically slow adopters of new technology, are among AI's faster-growing enterprise use cases

Annualized revenue, $M

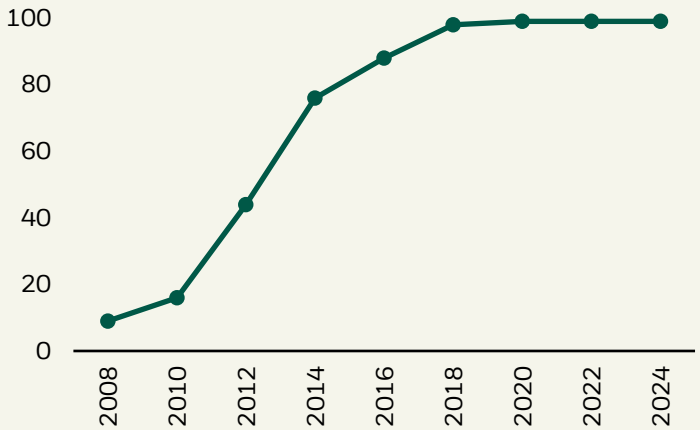


Source: A16Z News, "AI adoption by the numbers," 4/8/2026.

HEALTHCARE SURPRISES TO THE UPSIDE, AS A HISTORICALLY SLOW ADOPTER

Electronic health records (EHR) took decades to become the standard of care[1]

Percent of hospitals adopting EHR[2]



Source: **1.** arxiv, "Health information standardisation as a basis for learning health systems," 3/30/2020. **2.** ONC, "National trends in hospitals and physician adoption of electronic health records," 6/2026.

AI MAY BE REWRITING THE ENTERPRISE ADOPTION PLAYBOOK

1. Enterprise AI refers to AI technologies deployed by companies for use within their organizations, the 29% and 19% represent companies with live enterprise AI deployments.

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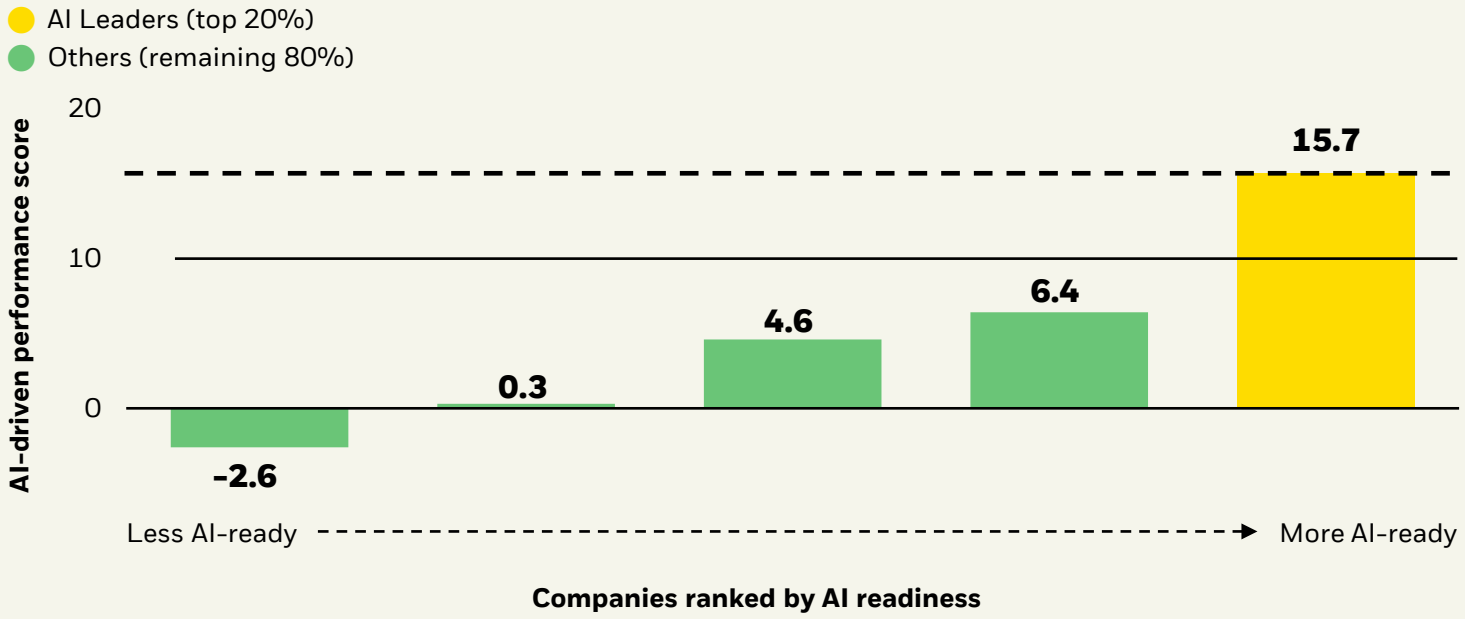
Not every AI investment becomes an AI winner

As AI adoption matures, opportunities may increasingly favor companies that can successfully deploy AI across their businesses, not simply those investing in AI technology.

AI-READINESS WIDENS THE PERFORMANCE GAP[1]

AI-driven performance score based on revenue growth, cost savings, and efficiency gains from AI, relative to the industry median of zero



REAL-WORLD EXAMPLE:

From AI chips to potato chips[2]

THE CHALLENGE:

Can AI make the perfect Pringle?

- Kellanova invested $4-5M in AI to make every chip more consistent
- Digital twin[3] → AI model → production adjustments

THE RESULTS:

A better Pringle & measurable returns

- **10%** improvement in quality
- **13%** reduction in waste
- **40%** return on investment

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Any reference herein to any security and/ or a particular issuer shall not constitute a recommendation to buy or sell, offer to buy, offer to sell, or a solicitation of an offer to buy or sell any such securities issued by such issuer.

1. PwC, "Want ROI from AI? Go for growth," 3/13/2026. Analysis of 1,217 companies. Companies (n = 1,217) are ranked from least to most AI-ready, with each bar representing 20% of surveyed companies. The top 20% of AI-ready companies are classified as AI leaders. **Forward looking estimates may not come to pass. 2.** Wall Street Journal, "Artificial intelligence helps perfect Pringle chip-making," 8/11/2026. **3.** Digital twin refers to a virtual model of a physical process or object

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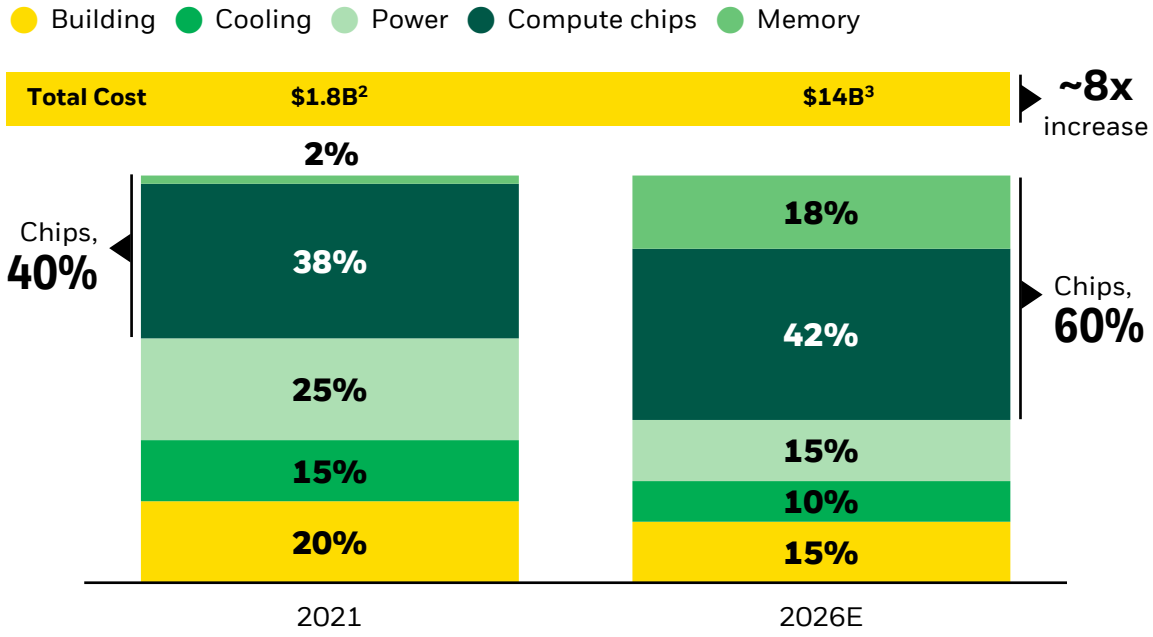
AI demand can accelerate overnight; chip supply cannot

Memory has become a larger share of data-center spending, but adding new supply takes years.

CHIPS DRIVE 60% OF BUILD COSTS, LED BY MEMORY

Share of total data-center build cost by component, 2021 vs. 2026 (estimated)[1]



MEMORY CAN'T KEEP PACE WITH AI COMPUTE

Over a typical four-year hardware cycle, compute capability has improved ~250% faster than memory bandwidth[4]

Year 0	**Commit capital / construction begins**
Years 1-2	**Build the factory and clean rooms**
Years 2-3	**Install and test manufacturing equipment**
Year 3-4+	**Meaningful production begins ramping**

REAL WORLD EXAMPLE[5]

Micron began Boise fab construction in Oct. 2023 ▶ **Meaningful memory chip output not expected till 2027**

Sources: 1 Exponential View, "The states of the AI economy," 6/25/2026. 2. Data Center Dynamics, "TA Realty planning $1.8 billion, 300MW data center campus in Loudoun County, Virginia," 3/4/2021. 3 PR Newswire, "Meta Announces New Strategic Venture with BlackRock to Develop Data Center in El Paso," 7/28/2026. 2021 project represents a planned 300MW hyperscale data center campus; 2026 project represents a planned 1,000MW AI data center campus, or ~3.3x the capacity. Figures reflect announced total project costs and are not adjusted for differences in project size or specifications. 4 arXiv,, "AI and memory wall," 3/2024. Illustrative timeline for new memory fabrication capacity. 5 Micron Technology, "Boise manufacturing expansion," accessed 7/2026.. Forward looking estimates may not come to pass

Materials, Energy, & Utilities

The AI economy is becoming a physical one

The AI gold rush runs on more than just gold

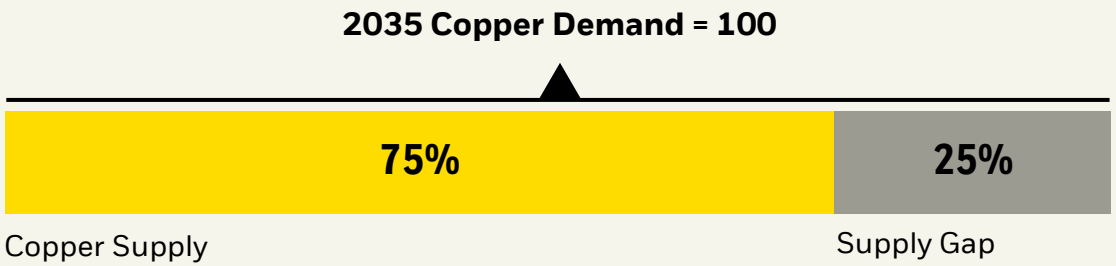
The critical materials challenge is twofold: more supply is needed, and refining must diversify.

THE LIST INCLUDES: U.S. DEPARTMENT OF INTERIOR LIST OF CRITICAL MINERALS[1]

COPPER | SILVER | PLATINUM | NICKEL | ZINC | ALUMINUM | 16 RARE EARTH ELEMENT | 38 OTHER MINERALS

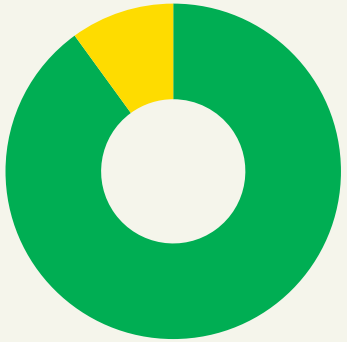
FOR SOME KEY MATERIALS, THE MINE PIPELINE MAY FALL SHORT

Current copper project pipelines could leave a quarter of 2035 demand unmet[2]



ACROSS THE BOARD, THE FUNNEL NARROWS AT REFINING...

The leading refining country accounts for 72% of global refined supply, on average[2]



Leading refining country

Additional refining countries

Across copper, lithium, nickel, cobalt, graphite and manganese; excludes rare earths.

THE CHALLENGE

Permitting, declining ore grades, capital intensity, and long development timelines

DIVERSIFICATION IS POSSIBLE

New U.S. projects and higher Malaysian output modestly lowered rare earths refining concentration in 2025[2]

1. U.S. Geological Survey, Department of the Interior, "List of Critical Minerals", 11/6/2025. **2.** IEA, Global Critical Minerals Outlook 2026. Share of refined material production in 2025. Materials measured include copper, lithium, nickel, cobalt, graphite, and manganese. Excludes rare earths. The top supplier's share declined from 90% in 2023 to 85% in 2025

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AI needs a historic amount of power

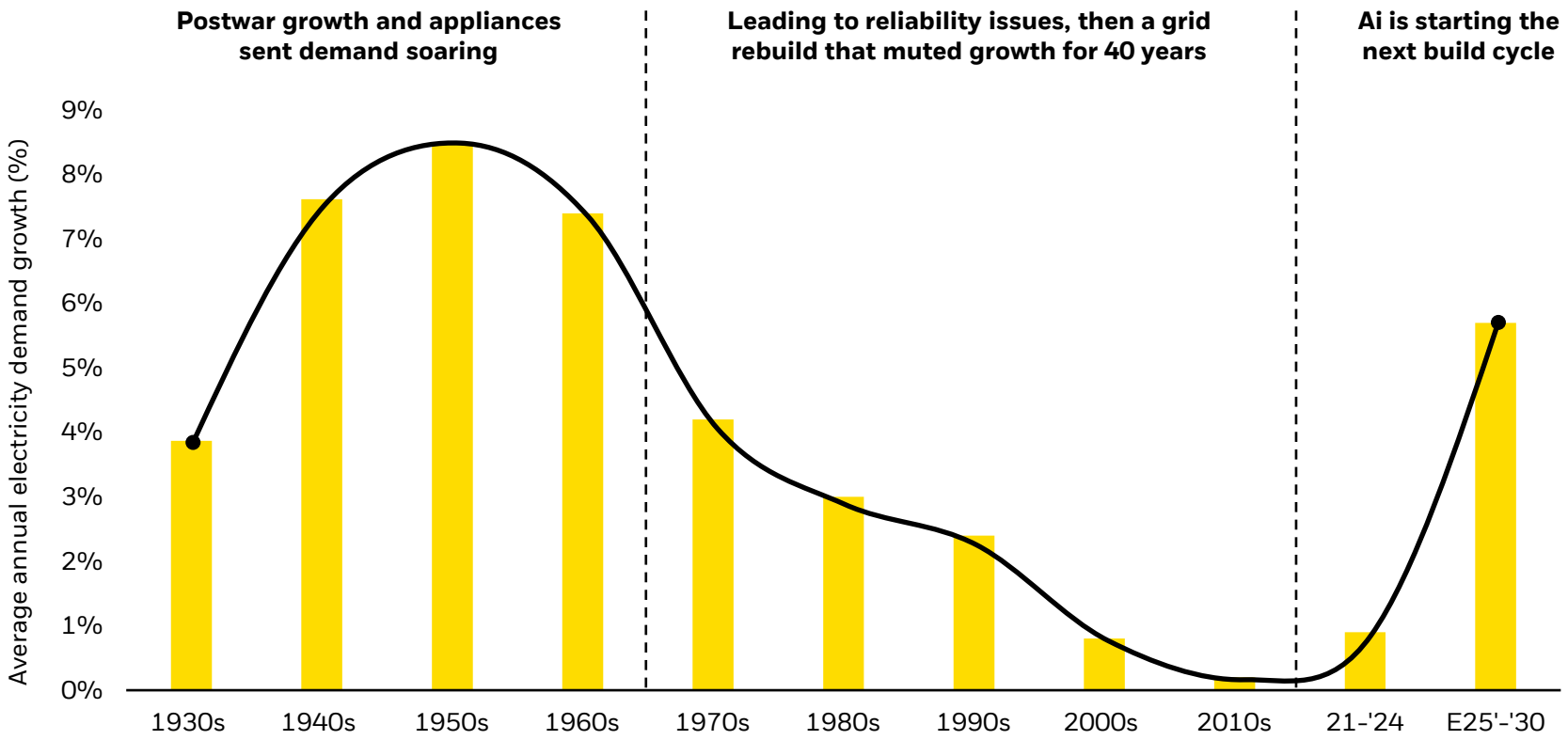
Demand for AI has resulted in the largest expected step-up in electricity demand growth in a century.[1]

121 GW

Projected U.S. data center IT power demand by 2030.[2]

BIG DEMAND HAS HISTORICALLY BROUGHT BIG BUILDOUTS

Surging power demand in 1930s–60s led to blackouts and backlash, resulting in decades of grid investment and reform.[1]



1. Grid Strategies, Power Demand Forecasts Revised Up for Third Year Running, Led by Data Centers, November 2025. Historical data sourced from NERC, Edison Electric Institute and the U.S. Energy Information Administration. 2025–2030 figure reflects Grid Strategies' forecast based primarily on FERC Form 714 filings. **Forward-looking estimates may not come to pass.. 2.** McKinsey, July 31, 2026

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Industrials

New frontiers are emerging across space & defense

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Companies are (space) racing to meet earth's problems

Infrastructure is improving, costs are falling, and new space-enabled markets are emerging.

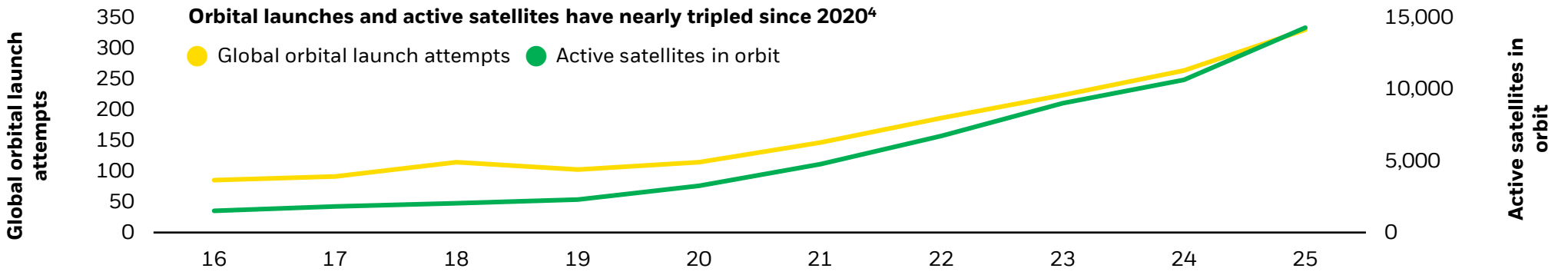
COULD OUR DATA CENTER POWER PROBLEMS BE SOLVED IN SPACE?

While significant engineering challenges remain, orbital computing could unlock more power while solving for grid constraints.

	Space	Earth
More energy	**~4–10x more power** produced by solar in space[1]	Only ½ of solar reaches Earth's surface[2]
More consistent output	**Near-continuous sunlight** in suitable orbits	Output varies with weather and seasons
Fewer physical constraints	**On-site power**, with no grid connection needed	Requires land and transmission

CHEAPER ACCESS TO SPACE UNLOCKS A WHOLE NEW LUNAR ECONOMY

Even if the technology isn't there yet, falling launch costs are creating a flywheel of experimentation.



95%[3]

Less expensive to launch a rocket to space now versus 65 yrs ago

1. NASA Glenn Research Center. "Re-Evaluating Satellite Solar Power Systems for Earth." 4th World Conference on Photovoltaic Energy Conversion, 2006. **2.** NASA Earth Observatory, "Climate and Earth's Energy Budget. **3.** "How Much Does It Cost to Launch a Rocket?," Orbital Radar, visited August 2, 2026. Figures based on company list prices and data from NASA, FAA, Bryce Tech and CSIS Aerospace Security. **4.** McDowell, Jonathan. "Space Activities in 2025," February 4, 2026. Planet4589

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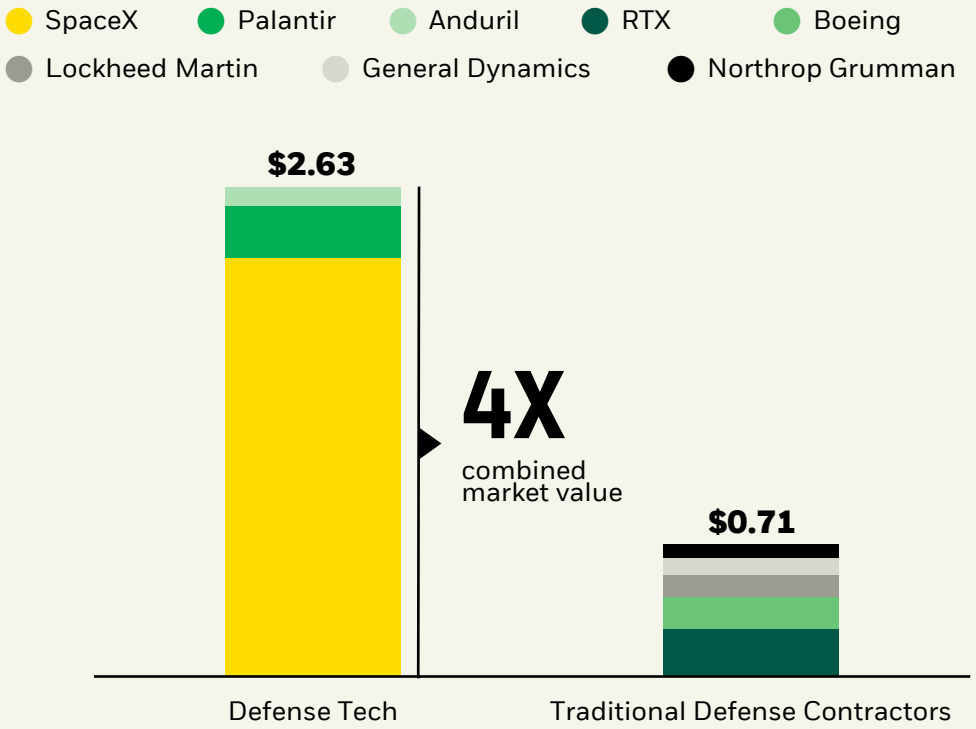
AI is widening the defense ecosystem across innovators and incumbents

The opportunity may sit on both sides of the transition: defense-tech companies building the next generation of capabilities and traditional contractors integrating and delivering them at scale.

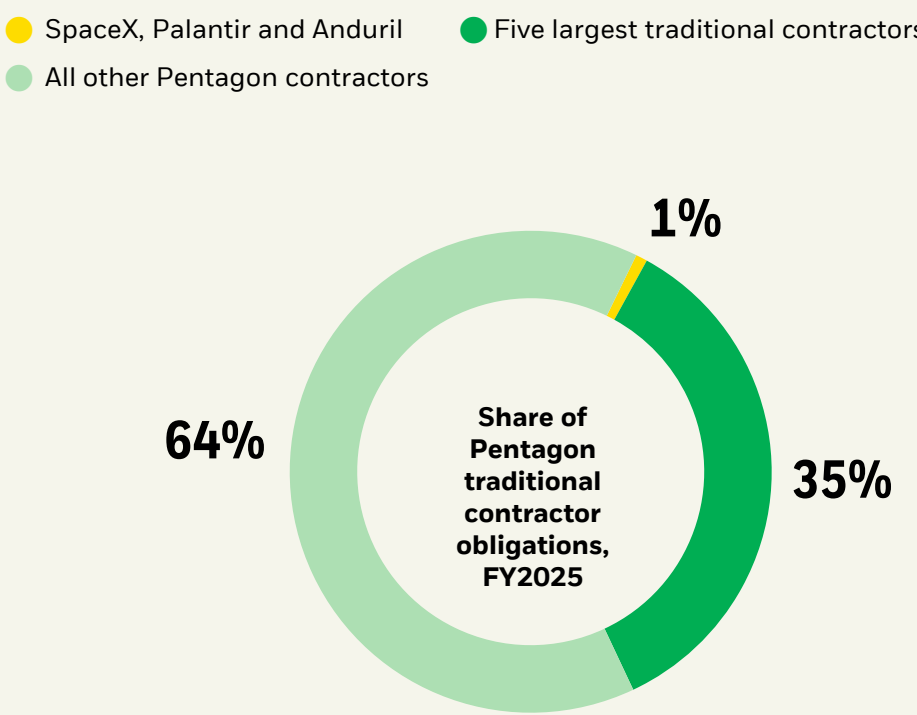
DEFENSE TECH COMPANIES COMMAND LARGE VALUATIONS…[1]

Top 3 defense tech companies versus top five defense contractors (Market Value ($T)



…BUT TRADITIONAL DEFENSE CONTRACTORS CONTINUE TO INTEGRATE AND DELIVER DEFENSE TECHNOLOGY AT SCALE[2]

Traditional defense contractors, receive nearly 50× more Pentagon contract obligations



Source: (LHS) Market Cap data as of 6/30/2026 , Anduril Source: TechCrunch, "Anduril reportedly in talks to raise funding at $100B valuation," July 24, 2026. Ronald Reagan Institute, (RHS) National Security Innovation Base Report Card, March 2026. Any reference herein to any security and/ or a particular issuer shall not constitute a recommendation to buy or sell, offer to buy, offer to sell, or a solicitation of an offer to buy or sell any such securities issued by such issuer.

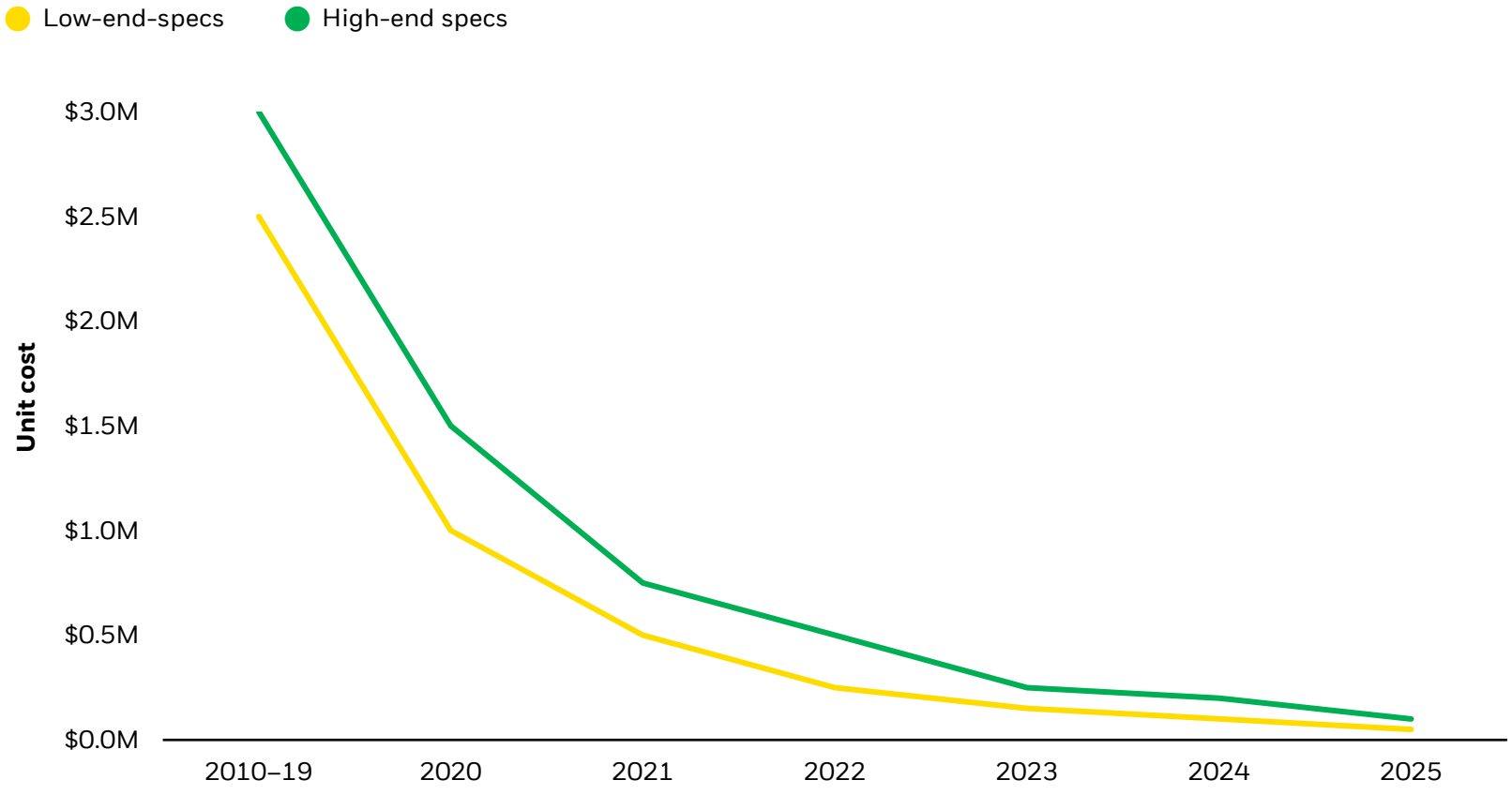
Consumer & healthcare

AI is moving beyond technology into daily life

Robotics moving from industrial to consumer

Physical AI: robotics brings superintelligence into the real world.

THE COST TO BUILD A HUMANOID ROBOT HAS FALLEN MORE THAN 30X IN A DECADE



Source: Barclays, "Impact Series 14: AI Gets Physical," January 2026.

EARLY ADOPTION IS VISIBLE WITH MORE PROJECTED TO COME

30+
Cities globally with commercial robotaxis[1]

186 Million
Commercial autonomous miles driven[2]

30,000
BMW vehicles assembled by humanoids robots in 2025[3]

50+
Companies developing humanoid robots[2]

3 Billion
Projected ownership of humanoid robots by 2060[2]

10+ Million
Projected annual humanoid shipments by 2035[2]

1. McKinsey Global Institute, "The race takes off in the next big arenas of competition." March 2026. **2.** Bank of America, "AI left the chat! Physical AI Primer." February 2026. **3.** BMW, "BMW Group advances the use of Physical AI in production with Figure 03 project in Spartanburg," June 2026.

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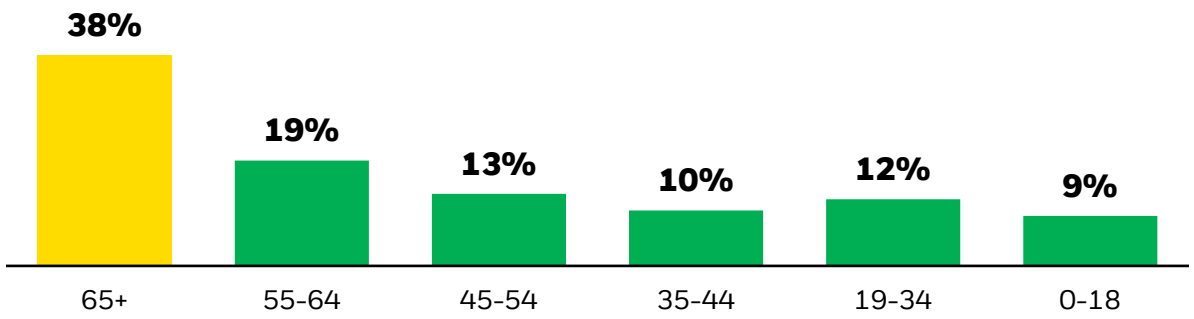
Back on earth, the world is aging... is AI right on time?

More patients, more data, and too few resources create a natural role for AI in healthcare.

STRUCTURAL DRIVERS

1 in 6 people will be 60+
years old by 2030 globally[1]

2023 U.S. HEALTH SPENDING BY AGE GROUP[2]

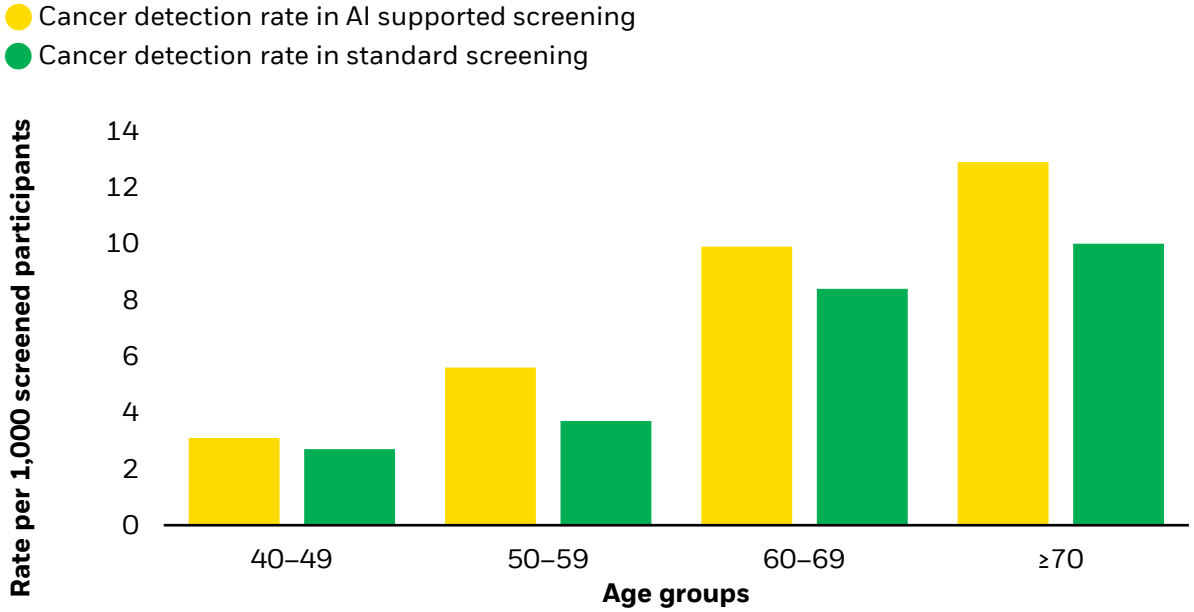


Older demographics spend 2x
more on healthcare than younger populations[2]

AI IS HELPING DOCTORS SEE MORE, SOONER

AI-supported radiology screening can improve cancer detection and help scarce medical resources reach more patients.

AI SUPPORT MAY INCREASE CANCER DETECTION BY UP TO 50%[3]



1. Source: World Health Organization, as of October 2025. **2.** Source: Peterson-KFF Health System Tracker, as of March 2026. **3.** Source: Hernström V, et al., The Lancet Digital Health, 2025. Randomized Swedish mammography-screening trial. Graph represents early screening performance measures per 1000 screened participants for 10-year age groups . "Up to 50%" reflects the approximate increase in cancer-detection rate for ages 50–59; the overall increase was 29% (6.4 vs. 5.0 per 1,000 screened). Overall recall and false-positive rates were slightly, but not significantly, higher with AI support.

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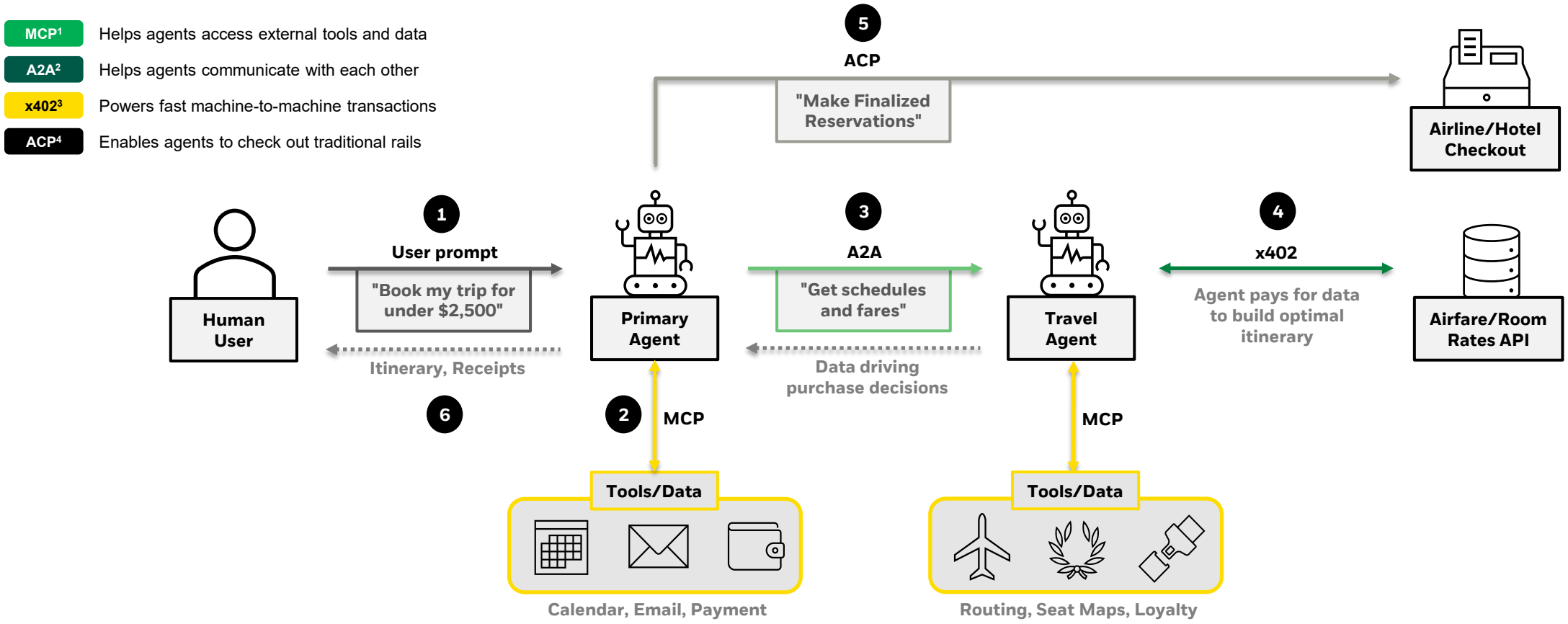
Financials

AI & Digital Assets may reinforce each other

AI & digital assets may begin to reinforce each other through daily use cases

An illustrative example of agentic commerce and payments, where multiple agents help a human user research, optimize, and book travel logistics autonomously.



Source: BlackRock Digital Assets Research**. For illustrative purposes only**

1. MCP refers to Model Context Protocol, introduced by Anthropic in November 2024; it is the vertical integration layer that standardizes how AI systems interact with external data and tools.
2. A2A refers to Agent2Agent, launched by Google in April 2025; it is the horizontal integration layer that standardizes how AI agents communicate and collaborate with each other.
3. x402 is developed by Base/Coinbase and using Circle's USDC as its native unit of account; it is emerging as the blockchain-native standard for high-velocity M2M financial transactions.
4. ACP refers to Agentic Commerce Protocol, developed by Stripe, OpenAI, and Meta; it enables lower-frequency, higher-ticket B2M and C2M transactions using traditional fiat payment rails such as credit cards.

What the AI economy could mean for portfolios

The next phase may reward breadth, selectivity and attention to constraints.

01

BREADTH

Where is AI spreading?

Broaden the lens

AI is becoming a cross-sector investment reality.

02

SELECTIVITY

Who is actually creating value?

Separate spending from value creation

The strongest adopters may matter as much as the companies building the infrastructure.

03

SCARCITY

Where is supply hardest to scale?

Follow the bottlenecks

Physical constraints may increasingly determine where economics accrue.

The AI opportunity may be broadening — but we believe value creation is unlikely to be evenly distributed.

Conclusion

AI has entered its next chapter, no longer beheld to just a single sector, but instead reshaping industries and influencing nearly every corner of the global economy. As the AI value chain continues to evolve, the opportunity is broadening beyond the companies building AI to those best positioned to put it to work.

The next phase of AI is also becoming increasingly physical. Rising compute demand is intensifying the need for critical materials and power, exposing bottlenecks along the way. At the same time, falling costs and advancing technology are opening new frontiers across space and defense, expanding the industries and companies participating in the AI buildout.

As AI moves beyond solely the technology sector and into everyday life, we are seeing new use cases for AI especially where growing demand meets limited resources; from robotics and autonomous systems to disrupting the healthcare system as we know it. Financial markets are also evolving, and AI & digital assets may be able to reinforce each other via daily use cases.

For investors, capturing these themes may increasingly require looking across sectors, understanding where constraints and adoption are emerging, and being selective about where value is ultimately created to fully capitalize upon the AI economy.

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Explore the AI opportunity set

ARTY	iShares Future AI & Tech ETF
BAI	iShares AI innovation & Tech Active ETF
SOXX	iShares Semiconductor ETF
THRO	iShares U.S. Thematic Rotation Active ETF

Access AI's physical economy

BILT	iShares Infrastructure Active ETF
POWR	iShares U.S. Power Infrastructure ETF
IDGT	iShares U.S. Digital Infrastructure and Real Estate ETF
IFRA	iShares U.S. Infrastructure ETF
ISTM	iShares Strategic Metals ETF
IDEF	iShares Defense Industrials Active ETF
ITA	iShares U.S. Aerospace & Defense ETF

Invest in daily use cases

BMED	iShares Health Innovation Active ETF

Digital Assets

ETHB	iShares Staked Ethereum Trust ETF*

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Investing in digital assets involves significant risks due to their extreme price volatility and the potential for loss, theft, or compromise of private keys. The value of the shares is closely tied to acceptance, industry developments, and governance changes, making them susceptible to market sentiment. Digital assets represent a new and rapidly evolving industry, and the value of the Shares depends on their acceptance. Changes in the governance of a digital asset network may not receive sufficient support from users and miners, which may negatively affect that digital asset network's ability to grow and respond to challenges Investing in the Trust comes with risks that could impact the Trust's share value, including large-scale sales by major investors, security threats like breaches and hacking, negative sentiment among speculators, and competition from central bank digital currencies and financial initiatives using blockchain technology. A disruption of the internet or a digital asset network would affect the ability to transfer digital assets and, consequently, would impact their value. There can be no assurance that security procedures designed to protect the Trust's assets will actually work as designed or prove to be successful in safeguarding the Trust's assets against all possible sources of theft, loss or damage.

Smart contracts, including those relating to decentralized finance applications, are a new technology and their ongoing development and operation may result in problems, which could reduce the demand for ether or cause a wider loss of confidence in the Ethereum network, either of which could have an adverse impact on the value of ether.

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AI technology relies on large data sets, which can lead to inaccuracies. Companies in AI face competition, rapid obsolescence, and depend on demand from various industries. Regulatory scrutiny could limit AI development, with data collection facing closer examination and potential fines. Country-specific regulations could also impact AI and big data companies.
Actively managed funds do not seek to replicate the performance of a specified index, may have higher portfolio turnover, and may charge higher fees than index funds due to increased trading and research expenses. There is no guarantee that an active fund will meet its investment objective.

Technology companies may be subject to severe competition and product obsolescence.
Funds that concentrate investments in specific industries, sectors, markets or asset classes may underperform or be more volatile than other industries, sectors, markets or asset classes and than the general securities market.

International investing involves risks, including risks related to foreign currency, limited liquidity, less government regulation and the possibility of substantial volatility due to adverse political, economic or other developments. These risks often are heightened for investments in emerging/developing markets or in concentrations of single countries

Securities issued in IPOs have no trading history, and information about the companies may be available for very limited periods. In addition, the prices of securities sold in IPOs may be highly volatile or may decline shortly after the IPO.

There is no guarantee that the classification system used in the iShares AI Innovation and Tech Active ETF will achieve its intended results or maintain a level of risk similar to that of a portfolio of companies in a traditionally defined sector by any other classification system.

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