

When AI Steps Off the Screen: The Real-World Revolution

"The best way to predict the future is to invent it" – Alan Kay¹

When electricity first lit up a bulb, it dazzled the public. But that was just the beginning. Over time, it became the invisible force behind industry, transport, communication, and modern life itself. Today, Artificial Intelligence (AI) is at a similar inflection point. Tools like ChatGPT have flipped the switch and made AI visible to the world. But the real transformation lies ahead, as AI becomes embedded in the physical world.

This commentary explores how real-world AI is emerging, why it matters, and why investors should pay attention.

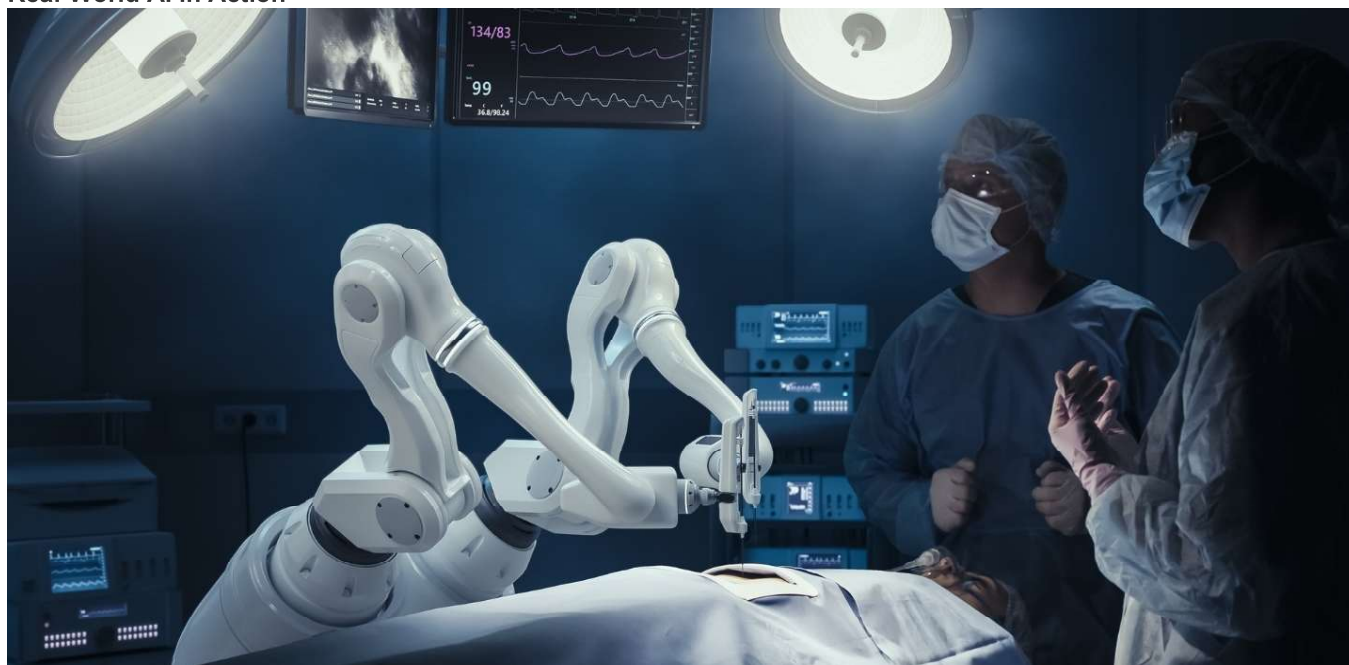
From Chips and Chatbots to Real-World Impact

Most headlines about AI start with the chips that power it. Companies like Nvidia dominate this part of the story. From there, attention shifts to chatbots such as ChatGPT and creative tools like Midjourney, and AI-powered writing assistants. These innovations have captured the public imagination but they represent only the first layer of what AI can do.

In 2025, a second layer is emerging: AI agents and adaptive systems that improve how data is processed and used. These technologies are increasingly embedded in digital infrastructure and automate tasks such as customer support, insurance quotes, scheduling and supply chain optimisation, often without human input.

Beyond this digital layer, a third and more profound shift is underway. AI is being woven into physical systems: classrooms, hospitals, factories, and transport networks. These aren't software upgrades. They change how we live and work.

Real-World AI in Action



Healthcare: AI as Surgeon and Diagnostician

AI helps doctors diagnose faster and operate remotely.

- **Remote surgery:** Platforms like Proximie use augmented reality and AI so specialists can guide procedures from anywhere. A surgeon in London can assist a procedure in Lagos without leaving their office.
- **Medical imaging:** Tools like PathAI and Aidoc help radiologists detect anomalies quickly and accurately.
- **Hospital administration:** AI is used to triage patients, optimise operating room schedules, and predict complications before they arise.

Mining: AI-Driven Improvements in Safety, Efficiency and Precision

AI improves safety and efficiency in resource-heavy industries.

- **Predictive maintenance:** In South Africa, Gold Fields uses AI to monitor equipment and anticipate failures before they happen.
- **Driverless haulage:** In Australia, Rio Tinto's autonomous trucks operate continuously across vast mining sites, reducing fuel use and human risk.

Mobility: AI Behind the Wheel

AI is reshaping transport systems.

- **Autonomous vehicles:** Companies like Waymo and Tesla are developing cars that interpret surroundings, make decisions, and navigate complex environments.
- **Last-mile delivery:** AI-powered robots are handling short-distance deliveries in urban areas. These machines navigate pavements, avoid obstacles, and deliver packages without human oversight, reducing congestion and emissions.

Education: AI as an Equaliser

AI is bridging gaps in access to quality instruction.

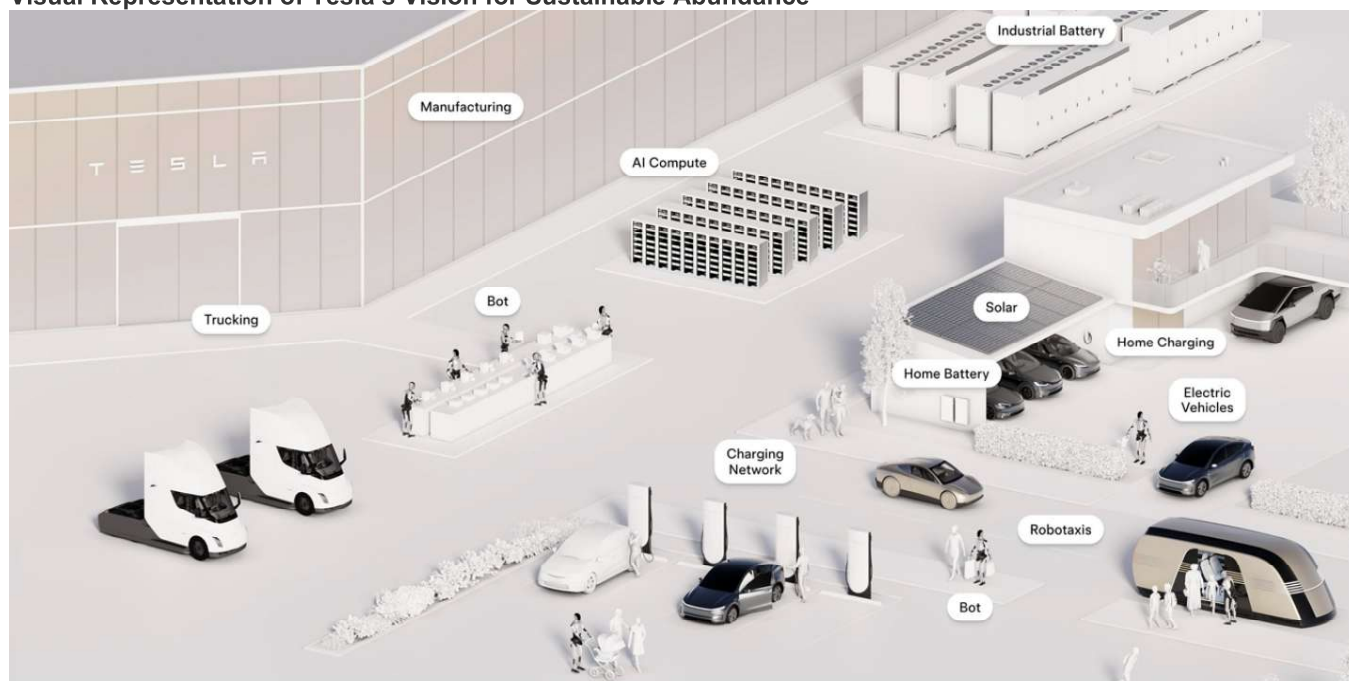
- **Personalised learning:** Platforms like Khanmigo and Squirrel AI tailor lessons to each student's learning style and pace.
- **Consistent support:** AI tutors never tire, never miss a lesson, and continuously improve. They can deliver instruction in multiple languages and adjust to different learning environments.
- **Global reach:** Imagine a student in rural Africa receiving the same quality of instruction as someone in New York. Not through a human teacher, but through an AI tutor that is always available, always responsive, and always learning.

Sustainable Abundance: Doing More With Less

AI enables us to do more while using fewer resources: less energy, less waste, less human risk. This is not just about efficiency. Tesla illustrates this shift. Beyond electric vehicles, its innovation lies in using AI to build a more intelligent and sustainable transport ecosystem.

- **Energy systems** are becoming cleaner and more reliable through AI-driven solar generation and large-scale battery storage. These technologies are increasing access to affordable electricity, especially in underserved communities.
- **Autonomous transport** is improving safety and reducing pollution in dense urban environments. AI-powered vehicles are making mobility more affordable and accessible, while freeing up time for people to focus on what matters most.
- **Labour itself is being redefined.** Tesla's Optimus robot takes on monotonous or dangerous tasks, freeing people for more meaningful work. This is not about replacing humans. It is about enhancing human potential.

Visual Representation of Tesla's Vision for Sustainable Abundance



Source: Tesla, Master Plan Part IV: Sustainable Abundance (2025)

The broader implication is significant. Sustainable abundance means designing systems that expand opportunity alongside output. Technology should broaden access, not concentrate control.

Investment Implications

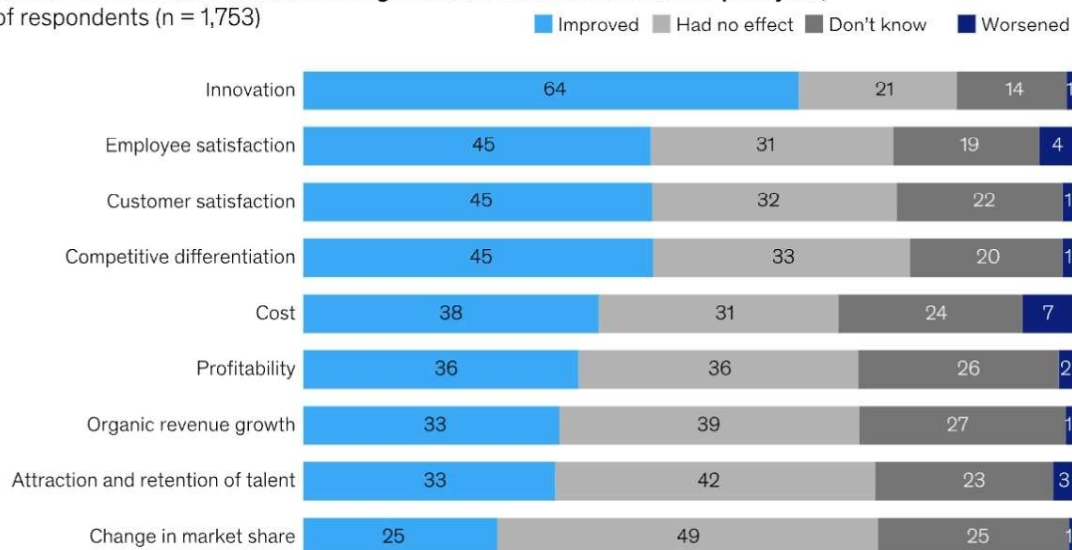
As AI moves into the physical world, the investment landscape is shifting. The winners will not only be software developers but also companies enabling, integrating, and applying AI in tangible ways.

- **Enablers:** These are the companies providing the infrastructure that powers AI: including semiconductors (Nvidia), cloud platforms (Amazon Web Services), and data systems (Snowflake).
- **Integrators:** Industrial firms embedding AI into their operations. This includes manufacturers (Siemens) and energy companies (Cargill) using AI to reduce waste, improve safety, and scale productivity. Many of these businesses are not priced like “AI stocks,” which creates potential for revaluation.
- **Adopters:** Organisations applying AI to solve specific problems. Lemonade uses AI to streamline insurance claims and customer interactions, Mercado Libre leverages AI for fraud detection and personalised e-commerce experiences, and Pfizer applies AI in drug discovery and clinical trial optimisation. These companies aren’t building the core technology, but they are transforming their business models and creating new value through its application.

Traditional moats like brand strength or scale may erode as smaller, adaptive firms use AI to operate faster and leaner. This shift is not limited to the tech sector. Mining, agriculture, and manufacturing are already deploying AI to drive measurable change. This shift was reinforced by insights from the 2025 McKinsey Global Survey on the state of AI, which analysed data from over 1,700 firms. According to the survey, 64% of companies reported enhanced innovation, while nearly half of the respondents cited improvements in employee satisfaction, customer experience, and competitive differentiation.

Extent to which AI use has affected organizational measures over the past year,¹

% of respondents (n = 1,753)



Note: Figures may not sum to 100%, because of rounding.

¹Asked only of respondents who said their organizations regularly use AI in at least 1 business function.

Source: McKinsey Global Survey on the state of AI, 1,993 participants at all levels of the organization, June 25–July 29, 2025

Source: McKinsey & Company, Global Survey on the State of AI (2025)

For investors, the key is to look beyond the obvious. The next wave of value may lie in companies quietly embedding AI into physical operations. These are not speculative plays. They are real businesses, with real cash flows, already benefiting from AI.

The Road Ahead

AI is entering its next phase. It is moving beyond digital novelty and becoming part of the infrastructure that powers our lives. We are seeing the rise of new types of AI systems:

- **Agentic AI:** Systems that act independently, such as warehouse robots and digital assistants.
- **Multimodal AI:** Systems that process multiple data types at once, such as combining images, text, and sound to understand context more deeply.
- **Embodied AI:** Machines that interact with the physical world, including humanoid robots like Tesla's Optimus.

AI is becoming foundational, like electricity: invisible, yet everywhere. The future is not AI versus humans. It is humans working alongside AI. The most powerful applications will combine human judgment with machine precision, balancing empathy with efficiency and creativity with scale.

Decisions on access, ethics, and inclusion will shape risk, regulation and long-term value creation. These choices will determine whether AI powers sustainable growth or becomes a missed opportunity.

Who Wins in a World of Abundance?

As AI drives sustainable abundance, the question shifts. In a world where efficiency replaces scarcity, how do we earn, contribute, and thrive? Will benefits be broadly shared or concentrated among corporations?

These are not just philosophical questions. They are investment questions. Advisers must help clients navigate a world where value creation looks different: where time, access, and adaptability become the new currencies of growth.

Companies that embrace real-world AI as a foundation will shape the future. Investors who recognise this shift and act decisively will be best positioned to benefit.

[1] Alan Kay, a pioneering computer scientist, coined this phrase in the early 1970s to emphasise that the future isn't something to predict passively—it's something we can actively shape through innovation. Rather than waiting for change, Kay urged technologists to create the tools and ideas that define tomorrow.

REDFIN WEALTH

INVESTMENT - RETIREMENT - FINANCIAL PLANNERS

October 2025

MARKET REPORT

31/10/2025

		3m	YTD	1yr	3yr pa	5yr pa	10yr pa	5yr Vol1	10yr Vol1
LOCAL MARKET INDICES									
SA Equity	ZAR	11.9%	33.0%	31.2%	21.3%	19.8%	10.2%	13.5%	14.1%
SA Listed Property	ZAR	9.6%	20.5%	22.9%	22.1%	25.1%	3.1%	18.4%	21.5%
SA Bonds	ZAR	6.6%	16.4%	19.4%	15.6%	11.8%	9.3%	7.2%	8.1%
SA Cash	ZAR	1.8%	6.3%	7.7%	8.0%	6.5%	6.8%	0.5%	0.4%
Balanced Benchmark	ZAR	8.1%	22.1%	23.6%	18.1%	16.2%	9.9%	9.1%	9.7%
SA Inflation (1 month lag)	ZAR	1.0%	3.5%	3.4%	4.2%	5.0%	4.8%	1.6%	1.7%
GLOBAL MARKET INDICES BASED TO USD									
Global Equity	USD	8.0%	19.5%	22.1%	21.8%	15.7%	11.9%	15.3%	14.8%
Emerging Markets Equity	USD	13.3%	32.7%	28.2%	20.9%	7.2%	7.5%	16.3%	16.7%
Global Property	USD	3.6%	9.2%	3.3%	7.6%	5.8%	3.0%	18.1%	16.9%
Global Bonds	USD	1.8%	7.6%	5.6%	5.5%	-1.7%	1.0%	7.8%	6.5%
US Cash	USD	1.1%	3.7%	4.5%	4.9%	3.1%	2.2%	0.7%	0.6%
MAJOR INDICES BASED TO RANDS									
SA Equity	ZAR	11.9%	33.0%	31.2%	21.3%	19.8%	10.2%	13.5%	14.1%
Global Equity	ZAR	3.6%	10.4%	19.7%	19.5%	17.2%	14.5%	14.4%	15.7%
Emerging Markets Equity	ZAR	8.6%	21.8%	25.6%	18.5%	8.6%	9.9%	12.7%	13.6%
Global Property	ZAR	-0.7%	0.9%	1.3%	5.6%	7.2%	5.4%	16.4%	17.0%
SA Bonds	ZAR	6.6%	16.4%	19.4%	15.6%	11.8%	9.3%	7.2%	8.1%
Global Bonds	ZAR	-2.4%	-1.2%	3.5%	3.5%	-0.4%	3.4%	10.6%	13.6%
COMMODITIES									
Gold (US Dollars)	USD	21.6%	53.5%	46.5%	34.6%	16.2%	13.2%	15.0%	14.2%
Gold (Rands)	ZAR	16.5%	41.0%	43.7%	32.0%	17.7%	15.8%	15.3%	17.0%
CURRENCIES									
Rand / Dollar	ZAR	4.7%	8.3%	1.8%	1.9%	-1.3%	-2.3%	12.1%	14.6%
Rand / GBP Pound	ZAR	5.4%	3.8%	-0.2%	-2.6%	-1.6%	-0.6%	9.8%	14.1%
Rand / Euro	ZAR	3.9%	-2.1%	-4.1%	-3.2%	-1.1%	-2.8%	9.5%	12.8%

KEY

Asset Class	Represented By:
SA Bonds	Satrix Bond Index Tracker
SA Cash	STeFi
SA Equity	Satrix ALSI Index Tracker
SA Listed Property	Satrix Property Index Tracker
Emerging Markets Equity	iShares Emerging Markets Equity Index Tracker
US Cash	Fidelity Institutional Liquidity The United States Dollar
Global Bonds	iShares Core Global Aggregate Bond ETF
Global Equity	iShares Developed World Index Tracker
Global Property	iShares Developed Real Estate Index Tracker

Disclaimer: Users should be aware that short term performance can be volatile and that past performance is not necessarily a good guide to future performance. The information in this report is for general guidance and does not constitute an offer or solicitation to purchase, sell or otherwise deal with any particular investment. This report is for the use of Fundhouse and its clients only and may not be published externally without permission first being obtained from Fundhouse. While great care and diligence has been taken in the compilation of the report with data provided by FE Analytics, no representation or warranty, express or implied, is or will be given by Fundhouse or its directors, partners, employees or advisers or any other person to the accuracy or the completeness of the information in the report or relating thereto. Fundhouse will not accept any liability for losses suffered as a result of inaccuracies. Data supplied by FE Analytics | www.fundhouse.co.za

REDFIN WEALTH

INVESTMENT - RETIREMENT - FINANCIAL PLANNERS

October 2025

Spot Rates		31-Oct-25	Latest Quarter	1 Year Ago	5 Years Ago	10 Years Ago	20 Years Ago
CURRENCIES							
Rand/US\$	Rand	17.3	17.3	17.7	16.2	13.8	6.7
Rand/GBP	Rand	22.8	23.2	22.7	21.0	21.3	11.9
Rand/EUR	Rand	20.0	20.3	19.2	18.9	15.3	8.0
RATES							
SOFR 6m \$	US\$	4.3	4.4	5.0	0.1	0.1	4.0
Repo Rate	Rand	7.00	7.00	8.00	3.50	6.00	7.00
Prime	Rand	10.50	10.50	11.50	7.00	9.50	10.50
All Bond Index Yield	Rand	9.0	9.2	11.6	11.6	8.7	9.7
COMMODITIES							
Gold (\$/oz)	US\$	3,979.0	3,833.9	2,740.8	1,880.8	1,141.1	465.7
Platinum	US\$	1,589.0	1,571.0	995.0	852.0	988.0	938.0
Oil (Brent Crude) \$	US\$	65.1	67.1	73.2	37.5	48.8	58.3
INFLATION							
SA Inflation	%	3.4	3.3	2.8	3.3	4.7	9.4

data provided by FE Analytics

Fundhouse is a leading investment adviser specialising in fund research, ratings and portfolio construction services. We help clients manage investments on behalf of the end investor. Our experienced team understands the complexities of the fund management world. We apply this knowledge alongside a client first mindset to improve the outcome for the end investor.

Fundhouse was founded in 2007 by professionals from the investment management industry. We currently operate from offices in the United Kingdom and South Africa, where we cover the local and global fund industry first hand. Our business is 100% independent and owner managed which means we can offer objective advice and services in the best interests of our clients.

Email: adviser@fundhouse.co.za | Web: www.fundhouse.co.za

FUNDHOUSE
investment clarity