The AI revolution

An introductory guide from a UK stock market perspective

By Richard Jeans

Executive summary

Artificial intelligence (AI) is moving at a phenomenal pace, with companies seeking to be ahead of the curve, and its impacts will ultimately spread across the broader economy. In this note, we take a look at the topic from a UK stock market perspective.

AI is not new, with its history traceable back to the 1950s. However, the AI phenomenon took off in late 2022, following the commercial launch of ChatGPT. The emergence of ChatGPT was a result of the combination of large language models (LLMs) with the enormous computing power offered by the burgeoning cloud computing providers, supported by a new generation of powerful computer chips. These new, generative AI solutions enable users to perform a broad range of tasks, including complex problem-solving, writing computer code, or generating/analysing text-based content, at enormously superior levels of productivity.

Most of the hype, to date, has focused on the US Big Tech players, including NVIDIA (which provides the powerful graphics processing units, or GPUs, used by the data centres to process data), the big cloud providers (that provide the computing power to analyse/train large data sets), and the generative AI front runners, several of which are linked to the Big Tech players.

In this note, we have identified a selection of UK technology companies that have already established AI operations, which, we believe, are significant to their investment cases. Also, we examine which UK-listed companies may be best prepared to benefit from the AI revolution.

We believe that investors should raise their awareness and understanding of AI, as it could well be a primary source of growth in global stock markets for the foreseeable future. However, as with all rapidly developing industries, there are uncertainties and, potentially, substantial risks. Consequently, while this report seeks to identify a number of relevant companies, many of which are still very small, it should not, in any respect, be interpreted as offering investment advice.

What is artificial intelligence?

Artificial intelligence (AI) refers to computer systems that perform tasks that normally require human intelligence. It involves the algorithms and models that enable machines to learn and reason, and make decisions or take actions. AI encompasses a wide range of areas. These include machine learning, natural language processing (or NLP, which is concerned with the interactions between computers and human language), computer vision, expert systems (emulating the decision-making ability of a human expert) and robotics. AI technologies can be applied across many industries, and have the potential to automate tasks, provide insights, improve decision-making and enhance productivity.

How could AI play out?

We recall the mid-1990s, when investors began to envisage the potential for the internet, which led to the internet stock market bubble at the turn of the century. Over the subsequent 30 years, the world has changed enormously, with the development of ecommerce, cloud computing and smart phones.

One just needs to try the free version of ChatGPT to get a grasp of the potential for generative AI. Further, it is important to understand that AI is a massive space, which extends well beyond generative AI, into areas including NLP, computer vision and robotics.

There are a number of ways in which AI could play out:

- At best, AI could drive substantial gains in productivity, resulting in accelerating global economic growth and declining poverty. As with previous technology cycles, it could make old jobs obsolete, but it could also create even more new roles.
- An alternative view is that, while AI will create enormous wealth, including a fresh wave of billionaires, it will simultaneously destroy many jobs, and lead to significant unemployment and widespread poverty. This will result in a record disparity between rich and poor, which, some may say, will require the introduction of universal basic income to support a new underclass.
- The doomsday scenario is that AI could lead to the destruction of humanity. However, this does sound reminiscent of the fear-mongering around the Y2K technical issue back in 1999.[1]

What strategies should investors consider?

We list the five following potential investment strategies:

- Investing in the established, albeit highly rated, US Big Tech companies that control the cloud computing infrastructure or provide the hardware.
- Most AI-focused businesses are small-cap companies or micro-caps, and investors could add these stocks to a broader portfolio to diversify risk. We note that the AI small- and micro-cap space is likely to be a highly risky area, with

[1] In the years leading up to the turn of the century, there were many media reports accentuating the year 2000 problem, or millennium bug. The issue related to potential computer errors, as many programs represented four-digit years with only the final two digits, making the year 2000 indistinguishable from 1900. This led some people to prepare for a computer-induced apocalypse, stocking up on food and survival equipment. However, countries such as Italy, Russia and South Korea, which had done little to prepare for Y2K, had no more technological problems than those countries, like the US and the UK, that spent millions of dollars to combat the problem.

some potentially huge successes, but many failures. These smaller companies may also require several rounds of funding, which could prove difficult. Hence, a prudent approach for small-cap investing would be to add a selection of AI stocks to a broad portfolio, anticipating failures, but hoping for one big winner.

- Identifying existing companies or industries that could benefit from AI, such as technology services businesses, which could take advantage from implementing AI transformation projects. We note that Accenture, the global consulting firm, is investing $3bn in its data and AI practice, to strengthen its AI capabilities, over the next three years. We believe that other professional services firms are likely to take similar steps.
- Buying shares in investment companies that have a significant exposure to AI[2].
- Underweighting stocks or industries that could be most disrupted by the AI revolution.

[2] We are not covering the investment company angle in this note. We hope to follow with a note on this subject in the coming months.

Selection of UK companies

We have identified 14 UK-quoted companies, in the table below, through a qualitative assessment, that appear to have established a significant presence in AI. The selected companies vary in size, from mid-caps to micro-caps, and operate across a range of technology subsectors, and several have recently listed on AIM. In addition, several of these businesses are early-stage, and many of the smaller stocks are illiquid (see the columns at the right of table on page 8). We have used this selection to create a simple index of AI-related stock prices that we can track.

However, the selection is not all-inclusive – for instance, it does not include Ocado, which provides a logistics platform that enables traditional retailers to offer a competitive online solution; this incorporates AI and machine learning in its technology estate. Another company, RC365, which focuses on payment gateway solutions and IT support, announced a deal with a partner for AI development that sent its share price up sharply in June.

In addition, several companies that have some involvement in AI are redefining themselves. For example, Mirriad Advertising, which offers in-content advertising, is now highlighting its patented, AI and computer vision technology, and other tech companies, such as Centralnic and Brandshield, are also including AI in their business descriptions. Investors need to be aware that company managements know AI is a buzzword. Some may include it in a description of their company, even though they have little exposure, in reality.

Service businesses will be of interest, as these companies will benefit from implementing AI transformation projects across the broader economy. Most of these players, at present, have a nascent presence in AI. In May, Kin & Carta, the digital transportation specialist, acquired Forecast Data, a global data service provider, strengthening its data and AI services unit.

S4 Capital, the digital advertising and marketing services business, held an AI briefing last month, and claims that it is ahead of the curve in the advertising world. However, some people believe the advertising world is at major risk of disruption from AI.

Finally, investment companies with a significant interest in AI will be of interest to investors seeking pre-packaged risk diversification. Forward Partners, the UK venture capital firm, had ca.40% of its portfolio in the Applied AI category, based on fair value, as at the end of December 2022. Owing to the nature of venture capital investing, these are typically early-stage, higher-risk investments. On our understanding, other technology-focused investment companies, such as Molten Ventures, Mercia Asset Management, Augmentum Fintech and Chrysalis, have only minor positions in AI. This sector currently trades at a large discount to NAV, which is an additional attraction, but the discount reflects the current economic uncertainties and scepticism about private company valuations.

A selection of UK-listed stocks with AI exposure

	Company	Code	Listing	Listing date	Product types	Primary target markets	Market cap (£m)
1	Darktrace	DARK	LSE:MAIN	30/04/2021	Cybersecurity software	Broad enterprise	2,013
2	Kainos	KNOS	LSE:MAIN	10/07/2015	Services	Public and private sectors	1,528
3	FD Technologies	FDP	LSE:AIM	28/03/2002	Software and consulting	Investment banks and others	539
4	Seeing Machines	SEE	LSE:AIM	01/12/2005	Software algorithms	Global transportation industry	225
5	Sondrel	SND	LSE:AIM	21/10/2022	Semi-conductors	Specialist industries, including OEMs	51
6	Smarttech247	S247	LSE:AIM	15/12/2022	Cybersecurity software	Broad enterprise	38
7	Intelligent Ultrasound	IUG	LSE:AIM	27/08/2014	Software and services	Healthcare	32
8	Windward	WNWD	LSE:AIM	06/12/2021	SaaS software solutions	Maritime interests, including governments	60
9	Cambridge Cognition	COG	LSE:AIM	18/04/2013	Software and services	Healthcare	34
10	Insig AI	INSG	LSE:AIM	10/05/2021	Software and services	Financial institutions	14
11	Tintra	TNT	LSE:AIM	13/09/2006	Fintech banking solutions	Emerging markets	21
12	Cordel	CRDL	LSE:AIM	30/05/2018	Technology solutions	Rail industry	12
13	StreaksAI	STK	LSE:MAIN	05/01/2023	Gaming and conversational AI	Consumer	10
14	Glantus	GLAN	LSE:AIM	11/05/2021	SaaS enterprise software	Large global enterprises	10

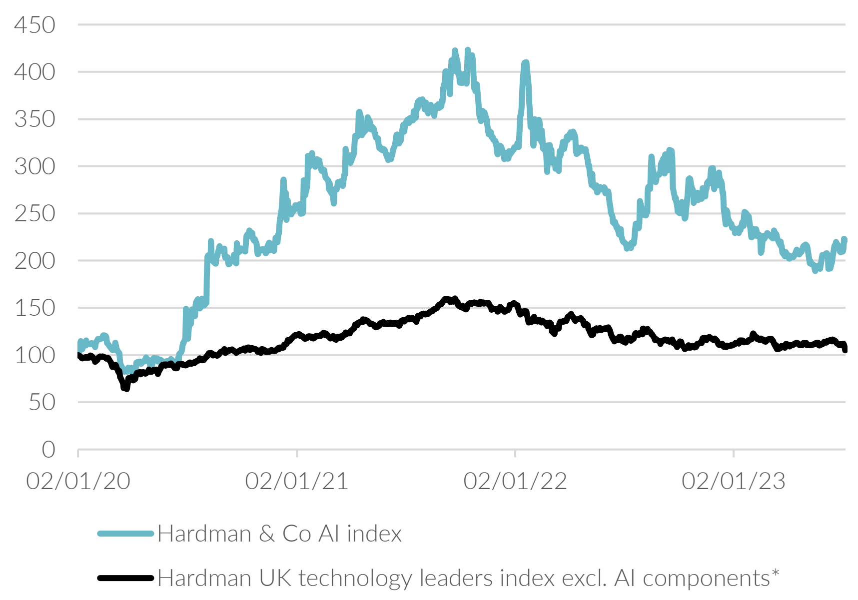
Source: Refinitiv data, Hardman & Co Research

"Sector" performance to date

AI-related stocks raced up through the pandemic period, when the markets were supported by loose monetary policy, and peaked in September 2021, according to our index. The stocks have broadly halved since then, reflecting the rout in small caps and sections of the technology sector, with indebted and loss-making stocks the worst-hit. The commercial launch of ChatGPT in late 2022 had little impact, with the market overshadowed by strong inflation data and a tightening monetary environment. Despite the sell-off, AI-related stocks have remained well ahead of their technology sector rivals since the beginning of 2020.

Our indices in the table below are constructed as price-weighted averages, with the original constituents rebased at 100, and initially divided by the number of constituents. The divisor is subsequently adjusted for appropriate capital issues or when constituents are added or removed.

AI performance relative to other technology



Source: Refinitiv data, Hardman & Co Research. Prices as at 7 July 2023.
**Constituents: Playtech, Computacenter, Softcat, Sage, GB Group, FDM, Keywords, Next15, Alfa Financial Software, Marlowe, Bytes and Eurowag*

"Sector" valuations

For the purpose of valuation, we have focused on EV/revenue and EV/EBITDA in the table below. For the latter profitability metric, we would prefer EV/adjusted operating profit, but the numbers are not easily accessible.

Among the larger companies in our selection, Darktrace, Kainos and FD Technologies all exhibit healthy growth, and have net cash positions, but they look pricey for one reason or another. While Darktrace has a high EV/revenue ratio, it is expected to grow at a strong pace, according to consensus forecasts, and is still potentially undervalued, since it is also a good cash generator. We note that the company saw a takeover approach in August 2022, but the talks were terminated during the turbulent market period of September 2022.

FD Technologies shares trade on a low ratio of EV/revenue; however, the company has a high P/E ratio, trading at ca.33x year three earnings. While its growth looks relatively subdued, at a 10% CAGR over the next two years, the focus is on the KX division, which grew revenue at 39% in the last financial year, and management is confident that it can continue to grow at pace. Kainos trades at a somewhat more moderate level of ca.26x this year's earnings, falling to 20x in year three.

Seeing Machines has the highest EV/revenue figures across the selection, and is loss-making for the next two years, according to the consensus data. However, its key OEM division grew revenues by 268% in the six months ending in December 2022, reflecting the benefits of years of investment and the lengthy time it takes for royalties to feed through from contracts won in prior years. Cars on roads increased by 177% over 12 months, to 874,851 units at the end of March. Also, there appears to be some confusion in the forecast data, as the company is switching its reporting currency from Australian dollars to US dollars.

Among the smaller companies, Sondrel looks interesting, owing to the scarcity of UK semiconductor businesses, and is seen as a quality business with a 21-year trading history. It trades on relatively low EV/revenue and EV/EBITDA, and is exhibiting strong growth. However, we believe investors should note its cash generation, as it burnt through cash of £9.3m (before financing activities) in the last financial year.

Smarttech247, Cambridge Cognition and Intelligent Ultrasound offer low valuations. Smarttech247 floated in December 2022, is profitable and cash-generative, but has no forecasts in the market. Cambridge Cognition is an interesting play on the AI space, as it provides the technology to assess brain health. Its CEO even has a PhD in Artificial Intelligence in Medicine. While it is likely to record losses in the next two years, according to consensus data, it operates as a cash-generative business model, and is expected to generate cash in spite of recording losses. Further, consensus forecasts point to growth in the high teens, and suggest that it has a low EV/revenue multiple. Intelligent Ultrasound may merit attention if it can achieve consensus forecasts of a 32% revenue CAGR over the next two years and swing into profit in 2024.

Among the micro-caps, Cordel has an enterprise value of just £9m. However, it has deals with the key rail companies in the US, UK and Australia, and, in March this year, it signed a significant deal with Amtrak, the main provider of intercity passenger rail services in the US. In early July this year, its chairman acquired 4.75% of the company, at 7p.

Several of the stocks have low liquidity, notably Smarttech247, Cordel and StreaksAI.

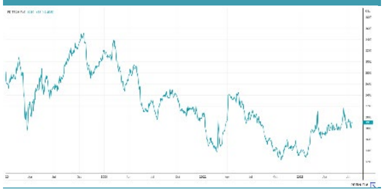
Valuations and liquidity

	Company	Fiscal year-end	Rep. curr.	Share price (p)	EV (GBP)	Rev CAGR over 2 yrs.	EV/Revenues				EV/EBITDA				Liquidity	
							Last Yr	FY1	FY2	FY3	Last FY	FY1	FY2	FY3	6-mth avg. daily vol.	Est'd. % of shares
1	Darktrace	Jun	US$	286.5	1721	28%	5.3	4.1	3.3	2.7	24.2	21.2	16.5	12.5	2,338,985	0.33%
2	Kainos	Mar	GBP	1,235	1420	14%	3.8	3.3	2.9	2.6	20.4	17.7	15.2	13.5	196,496	0.16%
3	FD Technologies	Feb	GBP	1,932	539	10%	1.8	1.7	1.5	1.4	15.5	13.8	11.7	10.0	66,296	0.24%
4	Seeing Machines	Jun	US$	5.44	213	23%	7.3	5.7	4.9	3.4	-ve	-ve	-ve	24.3	4,563,395	0.11%
5	Sondrel	Dec	GBP	59	47	53%	2.7	1.6	1.1	n/a	-ve	9.5	5.7	n/a	128,448	0.15%
6	Smarttech247	Jul	EUR	31	32	n/a	5.3	n/a	n/a	n/a	27.0	n/a	n/a	n/a	55,402	0.05%
7	Intelligent Ultrasound	Dec	GBP	9.5	25	32%	2.5	2.0	1.4	n/a	-ve	-ve	12.7	n/a	335,199	0.10%
8	Windward	Dec	US$	72.5	43	17%	3.1	2.7	2.3	1.9	-ve	-ve	-ve	685.1	141,547	0.17%
9	Cambridge Cognition	Dec	GBP	97.5	26	17%	2.0	1.7	1.5	1.3	-ve	-ve	-ve	25.7	52,420	0.15%
10	Insig AI	Mar	GBP	14.35	13	n/a	7.5	n/a	n/a	n/a	-ve	n/a	n/a	n/a	116,607	0.12%
11	Tintra	Jan	GBP	127.5	20	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	94,216	0.57%
12	Cordel	Jun	GBP	6.25	9	44%	4.1	3.1	2.0	n/a	-ve	-ve	-ve	n/a	61,371	0.03%
13	StreaksAI	Feb	GBP	2.6	8	n/a	n/a	n/a	n/a	n/a	-ve	n/a	n/a	n/a	22,135	0.01%
14	Glantus	Dec	EUR	20.5	21	n/a	2.6	n/a	n/a	n/a	-ve	n/a	n/a	n/a	74,204	0.15%
	Averages					26%	3.3	2.4	1.9							0.17%

Source: Refinitiv data, Hardman & Co Research. Prices as at 7 July 2023.

Summary of the selected companies

Darktrace – share price graph (p)



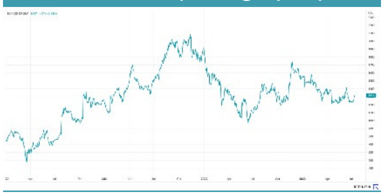
Source: Refinitiv

1. **Darktrace** is a global cyber security AI business. Its goal is to deliver a complete AI-powered solution in order to free the world of cyber disruption. The technology vision is of a Cyber AI Loop, which is a system that improves cyber security at every stage of a cyberattack life cycle.

   In its FY'23 trading update, Darktrace said that annualised recurring revenue (ARR), at 30 June 2023, was at least $626.5m, representing YoY growth of at least 29.2% at constant currencies. In a separate announcement, Darktrace said an independent review by Ernst & Young had not found any issues that were not already known to it. Consequently, Darktrace will not have to restate its previous financial results. This news inspired a sharp rise in the shares.

   Darktrace says it expects one-year gross ARR churn to have increased by up to 0.3%, to not more than 6.9%, driven by a higher number of defaults and non-renewals, which reflects the difficult macroeconomic environment. Consequently, the group's net ARR retention rate at 30 June 2023 is expected to have decreased by up to 0.7%, to not less than 104.6%. Revenue for the year ended in June 2023 is expected to have grown by ca.31%, to $544.3m, while the adjusted EBITDA margin is expected to be at least 22%. For the current financial year, the company currently expects a YoY increase in constant currency ARR of between 21% and 23%, with the adjusted EBITDA margin holding steady, at around ca.22%. At end-December 2022, the group had $374.9m of cash and no financial debt.

Kainos – share price graph (p)

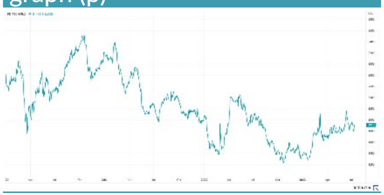


Source: Refinitiv

2. **Kainos** is a UK-headquartered technology services provider, with expertise across three divisions: Digital Services, Workday Services and Workday Products. The Digital Services unit develops and supports custom digital service platforms for public sector, commercial and healthcare customers. The group's AI projects unit already has more than 120 professionals generating revenues in excess of £23m.

   Kainos produced revenue of £374.8m in the year-ended March 2023, reflecting organic growth of 22%. The group finished the year with cash of £108.3m, and it had no financial debt. Cash conversion during the year was 104%. Management maintained a confident outlook, despite the ongoing economic volatility.

FD Technologies – share price graph (p)

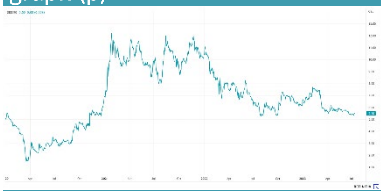


Source: Refinitiv

3. **FD Technologies** is a group of data-driven businesses that unlock the value of insight, hindsight and foresight to drive organisations forward. The group comprises: KX, which provides software to accelerate AI-driven innovation; First Derivative, providing consulting services, which drive digital transformation in financial services and capital markets; and MRP, which provides technology-enabled services for enterprise demand generation.

   In the year-ended February 2023, revenue grew by 12%, to £296m. The focus was on KX, which exceeded its targets in growing ARR by 39%, to £65.3m, along with a net revenue retention of 119%. The group ended the period with net cash of £0.4m, excluding leases. Management provided guidance for FY'24 revenue in the range of £315m to £325m, with adjusted EBITDA in the range of £38m to £40m. The main growth is expected from the KX unit.

Seeing Machines – share price graph (p)

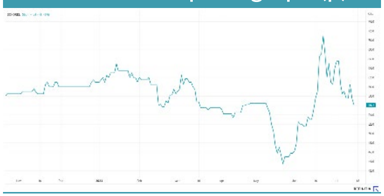


Source: Refinitiv

4. **Seeing Machines**, headquartered in Australia, develops Driver Monitoring Systems (DMS) technology for occupant safety in the automotive, commercial fleet, off-road and aviation industries. It has operated in the AI space for many years, as it offers vision-based monitoring technology that enables machines to see, understand and assist people. It has a technology portfolio of AI algorithms, embedded processing and optics that power products that must deliver a reliable, real-time understanding of vehicle operators.

   Seeing Machines grew revenue by 54%, to $24.4m, in the six months to December 2022. The group ended the period with gross cash of $52.2m and net cash of $22.2m. The OEM unit (automotive and aviation) saw revenue grow by 268%, to $14.0m. We note that deals signed can take several years to feed through into revenue. Management commented that the business is underpinned by structural drivers and regulatory tailwinds, and said that the year-ended June 2023 was expected to be in line with consensus expectations.

Sondrel – share price graph (p)

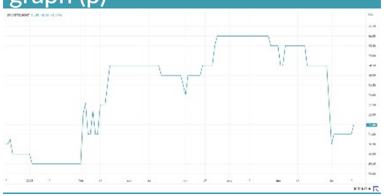


Source: Refinitiv

5. **Sondrel** is a UK-based fabless semiconductor company specialising in high-end, complex digital Application Specific Integrated Circuits (ASICs) and System on Chips (SOCs). The company is capable of designing and supplying the higher-spec chips built on the most advanced semiconductor technologies, selling into a range of hyper-growth end-markets, such as high-performance computing, automotive, AI, VR/AR, video analytics, image processing, mobile networking and data centres.

   Sondrel grew revenue by 116%, to £17.5m, in the year to December 2022, taking revenues above pre-pandemic levels. New orders surged by 130%, to £25.6m, providing visibility over FY'23 revenue. The adjusted EBITDA loss reduced to £1.1m, from £2.5m, while the loss before tax rose to £6.4m, from £5.5m. The cash balance at year-end was £4.4m, and the group repaid its outstanding financial debt during the period. Sondrel floated on AIM in October 2022, raising £20m before costs.

Smarttech247 – share price graph (p)



Source: Refinitiv

6. **Smarttech247** is an automated Managed Detection & Response (MDR) company. Its platform provides threat intelligence with managed detection and response to enable actionable insights, 24/7 threat detection, investigation and response. The group's services are geared towards proactive prevention, and it achieves this by utilising the latest in cloud, big data analytics and machine learning, along with an experienced incident response team.

   Smarttech247 grew revenues by 19.4%, to €4.62m, in the six months ended January 2023. Adjusted EBITDA jumped by 59.7%, to €1.15m, and the group ended the period with cash of €7.0m. It has no financial debt. Smarttech247 floated on AIM in December 2022, raising £3.7m before costs.

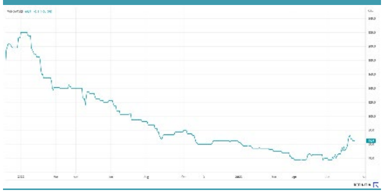
Intelligent Ultrasound – share price graph (p)

Source: Refinitiv

7. **Intelligent Ultrasound** is a "classroom-to-clinic" ultrasound company, specialising in real-time, hi-fidelity virtual reality simulation for the ultrasound training market (classroom) and AI-based clinical image analysis software tools for the diagnostic medical ultrasound market (clinic).

   Intelligent Ultrasound saw revenue grow by 33%, to £10.1m, in the year to December 2022. Notably, clinical AI-related revenue surged by more than 200%, to £0.7m. The group loss after tax reduced to £3.0m (2021: £3.6m), and it ended the year with cash of £7.2m, after a £4.8m placing (net of fees). It had no financial debt. Management said that, following a positive start in 1Q, and supported by a growing range of both AI and simulation-related products, it expected to "continue this growth during 2023".

Windward – share price graph (p)

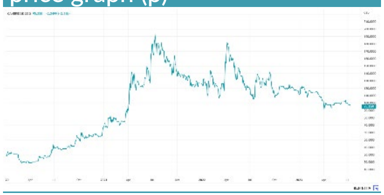


Source: Refinitiv

8. **Windward** is a maritime AI company, enabling organisations to achieve business and operational readiness. Windward's AI-powered solution allows stakeholders, including banks, commodity traders, insurers and major energy and shipping companies to make real-time, predictive intelligence-driven decisions, providing a 360° view of the maritime ecosystem and its broader impact on safety, security, finance and business.

   Windward grew revenue by 25%, to $21.6m, in the year to December 2022, and recorded an adjusted EBITDA loss of $12.1m. It finished the period with cash and cash equivalents of $22.1m, and it had no financial debt. In its first-half trading update, the company said that revenue grew by at least 17%, to not less than $12.7m, while the annual contract value (ACV) had risen by 23%, to $27.6m, as at 30 June 2023. The gross margin increased by 5%, to 77%, due primarily to cost-saving actions taken earlier in the year. Cash burn more than halved, to $4.2m (1H'22: $8.8m), reflecting the management's strategy to accelerate the path to profitability, while the net cash position slipped to $17.9m at the period-end.

Cambridge Cognition – share price graph (p)



Source: Refinitiv

9. **Cambridge Cognition** is a technology company developing digital health products to better understand, detect and treat conditions affecting brain health. The company's software products assess cognitive health in patients worldwide to improve clinical trial outcomes, identify and stratify patients early, and improve global efficiency in pharmaceutical and healthcare industries.

   Cambridge Cognition grew revenue by 25%, to £12.6m, in the year to December 2022. Profit for the year, adjusted for acquisition-related expenses of £0.5m, was £0.1m. The group has a cash-generative revenue model, increasing the cash balance by £1.5m over the year, to close at £8.3m. It has no financial debt. Management estimates that average growth rates across its target markets are currently ca.10% per annum, and it believes its revenue growth will exceed the industry growth rates.

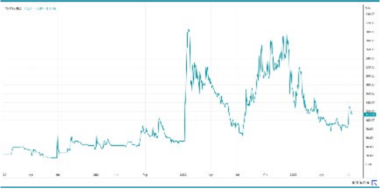
Insig AI share – share price graph (p)

Source: Refinitiv

10. **Insig AI** has developed a solution for asset managers to assess ESG (environmental, social and governance) criteria across public and private companies, utilising 15 NLP-trained classifiers. Further, the company has created a database of around 4,000 companies, covering some 150k filings over eight years, which are in machine-readable format.

    In a trading update in April this year, Insig AI said that revenue (unaudited) for its financial year to March is expected to be at least £2.0m, comprising ca.£1.4m from the group's legacy Sport In Schools business and ca.£0.6m from the Insig AI business. This represents sales growth of around 6% at Sport In Schools and 60% at the Insig AI business. The company has forecast that its Insig AI business will generate revenue of not less than £1.4m in the current financial year. Cash at bank as at 31 March 2023 was ca.£0.3m, and the company raised £0.9m by way of an equity subscription in April, at 17p per share. Also in April, Insig AI announced that it would be providing data and software to the FCA's 2023 TechSprint, known as the Global Financial Innovation Network's (GFIN) Greenwashing TechSprint. The GFIN Greenwashing TechSprint will be hosted as a virtual TechSprint, using the FCA's Digital Sandbox platform between June and September 2023, and brings together 13 international regulators so far, working with firms and businesses that have expertise in ESG and technology.

Tintra – share price graph (p)

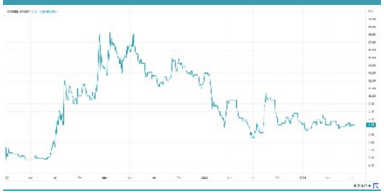


Source: Refinitiv

11. **Tintra** is a DeepTech bank that uses patented AI to help people in emerging markets to easily and securely transfer money. The AI-powered platform eliminates the obstacles that make cross-border transactions difficult.

    In the six months to end-July 2022, Tintra posted zero revenues, and recorded a loss before tax of £0.4m. At the end of the period, the group had net cash of £0.7m.

Cordel – share price graph (p)



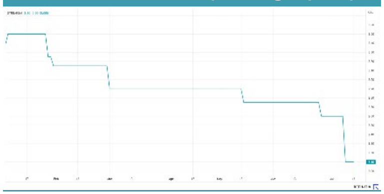
Source: Refinitiv

12. **Cordel** produces specialist hardware and software for capturing, analysing and reporting on large datasets within the transport sector, employing sophisticated AI algorithms.

    Cordel reported constant currency revenue growth of 15%, to £0.7m, in the three months to end-March 2023, with an EBITDA loss close to breakeven, as expenses fell. For the nine months to end-March 2023, revenues grew by 31% at constant currencies, to £1.7m, with an EBITDA loss of £0.8m. At end-December 2022, the group had net cash (excluding lease liabilities) of £0.9m, and in March, after the period-end, it raised £1.7m in at placing at 6p.

    In March this year, the company signed a contract worth in excess of $6.7m with Amtrak, the main provider of intercity passenger rail services in the United States. Cordel will deliver an automated clearance system that leverages AI and automated LiDAR data capture (laser scanning), working with its UK clearance assessment partner, DGauge Ltd, to manage and optimise the clearance data. In June this year, Cordel's technology was certified by Network Rail in the UK, and, in July, its existing clearances contract with the Australian Rail Track Corporation (ARTC) was extended by a further 14 months, to August 2024.

StreaksAI – share price graph (p)

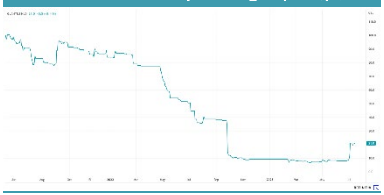


Source: Refinitiv

13. **StreaksAI** (recently renamed from Streaks Gaming) is a provider of AI-based conversational technologies. The company offers two core products in the gaming and conversational AI spaces.

    In the year to end-February 2023, the group generated zero revenues and posted a pre-tax loss of £3.4m. The company floated on the LSE main market in January 2023, raising £3m (gross), and ended the period with cash of £2.1m. It had no debt. In June this year, the company, which already has a conversational gaming platform called "Streaks Gaming", announced the planned launch in 3Q of its second flagship product, called "Streaks Social", and, in July, it renamed itself as StreaksAI.

Glantus – share price graph (p)



Source: Refinitiv

14. **Glantus** is a provider of Software as a Service (SaaS) solutions, which help global enterprises analyse, automate and digitise their spending across the accounts payable (AP) function. Glantus deploys advanced data analytics capabilities, including AI and optical character recognition (OCR), Robotic Processes Automation (RPA), and advanced algorithms to consolidate and verify the accuracy of accounts payable. It works to discover and recover lost working capital, improve efficiency, minimise errors, measure performance and mitigate fraud.

    In the year-ending December 2022, the group recorded a 3% decline in revenue, to €10.3m, while it swung to a pre-tax loss of €5.6m. It finished the year with net debt of €12.4m, excluding leases, and a further €1m of acquisition liabilities. In 1Q'23, the company removed €4.2m of annualised costs, and returned to profitability and positive cashflow. 1Q revenues were ca.€3.47m, with adjusted EBITDA of ca.€1m, which was ahead of management's expectations. It also extended a repayment date on a €5m loan, which was due in August 2023, by 24 months. In July this year, Glantus announced that it was in discussions in relation to a possible cash offer for the company.

Conclusion

AI could potentially be the primary source of growth in the global stock markets over the next decade. Therefore, we believe investors should seriously consider exposure to AI-driven businesses.

We have identified 14 UK stocks that already have well-established AI businesses. In our view, investors should normally focus on profitable companies with healthy balance sheets. Alternatively, high-growth, loss-making businesses with exciting business plans could also be considered, if they have sufficient funding in place to see them through to profitability.

In addition to our selection, we note that technology services companies stand to benefit from implementing AI transformation projects. Most of these companies have nascent AI-related revenue. Companies of interest in this space include Next 15, FDM, Alpha Financial Markets Consulting, Kin & Carta and TPXImpact, along with Kainos (which we have included in our selection).

The venture capital firm Forward Partners is the only investment company that we could identify that has a significant exposure to AI. It has a ca.40% exposure to Applied AI, and trades at more than a 50% discount to its last stated NAV (72p as at 31 December 2022).

Finally, underweighting stocks or industries that could be prone to disruption from new technologies is a challenging exercise. The educational training sector has been highlighted in the media, after Chegg, the US online learning company, warned, in May this year, that ChatGPT was reducing demand for online learning. This induced a sell-off across the sector, including in Pearson, the UK FTSE-100 education company. Nevertheless, we believe the underweighting theme is also likely to be about assessing whether management is failing to adapt to an evolving backdrop.

We will monitor the AI space closely and, in future editions, will take a closer look at relevant issues, such as evolving AI applications and project types, regulation and the shareholding structures of the companies discussed.

About the author

Richard Jeans

Richard Jeans is an equity analyst at Hardman & Co, covering the technology sector.

Richard has worked in the investment research industry and financial media for over 35 years. He has covered small-cap technology stocks from across the globe for more than 15 years. He has built up a strong knowledge of the global capital markets, having worked on the capital markets desk at the Financial Times. Prior to that, he worked at an independent equity research company in the early 1990s. Brought up in New Zealand, his first job involved compiling the stock market data for New Zealand's largest newspaper.

Richard joined Hardman & Co in 2023. He is an ASIP, and has been a member of the CFA Institute and its predecessor organisations since 1990.

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