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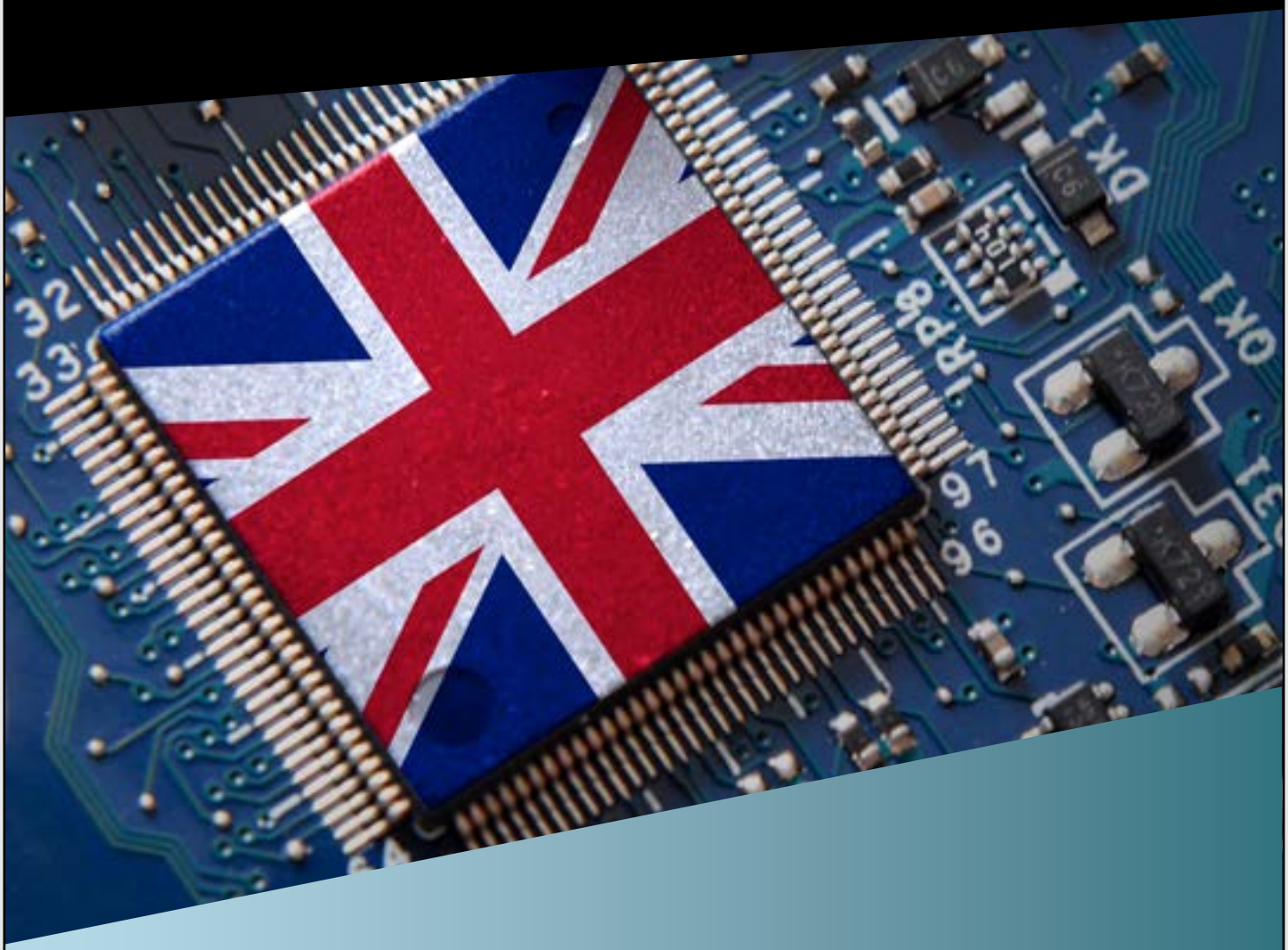

The Britannia Chip:

The British AI Stock Set to Make 1,500% in the Next Five to 10 Years

05/02/2025

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The Britannia Chip: The British AI Stock Set to Make 1,500% in the Next Five to 10 Years

James Allen, Editor, *Southbank Growth Advantage*

300 years, 3 miles and £132 billion of British genius

Philosophiæ Naturalis Principia Mathematica (Principia) is one of the most important scientific works ever.

It is the work of Sir Isaac Newton, published in 1687 which lay the foundations for classical mechanics, mathematics, physics and science.

When Newton wrote this seminal works he was a professor at Trinity College, Cambridge, England.

Source: Google Maps

You can see Trinity College in the Google Maps screenshot above.

Newton is arguably the greatest British inventor and scientific mind there's ever been in terms of impact on our world. If there were to be a name that perhaps would come close, it would be that of Stephen Hawking.

But it should also come as no surprise that Hawking too did his most impactful work at

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the very same location, right in the middle of Cambridge and even held the same position as Newton, Lucasian Professor of Mathematics.

So, there's at least *two* of the greatest scientific minds in *history* that you can trace right back to the quaint and beautiful city of Cambridge in the English countryside.

What if we told you there was a third though?

A name that arrives almost exactly 300 years after Newton walked the ground at Trinity College. A name that you probably don't often associate as being as impactful on science and our world as you do Newton or Hawking.

But arguably a name that's just as (if not more) important than both…

In fact, if you jump on a bike, in about 18 to 20 minutes just *three miles* down the road from where Newton and Hawking toiled away, you'll find this building,

This is one building of several that occupy a large technology park just down the road from Trinity College. This isn't a college per se, but it is part of a large technology park… a *different* kind of campus.

And it's here that you'll find the future of the United Kingdom. The *epicentre* of Great British innovation, science and technology. The engine room for British economic growth and Britain's chance to again be a commander of global markets.

In these buildings is over 45 years of the world's most important innovation, invention and scientific discovery that is the cornerstone of the world we live in today.

Newton… Hawking… *this company*.

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In our view it should be held in the same regard. And it's this company at the centre of Great British innovation that we think also is at the centre of our future, and the most exciting British company for investors in the world today.

To understand exactly how important though, let us wind back the clock to the 1980s.

A computer in every classroom

In the 1980s the BBC explored the new and exciting world of personal computers with a programme they called *The Computer Literacy Project*.

The aim was very simple: to help people, and more specifically children, understand, learn and explore the world of computers. This all came about after Dr Christopher Evans hosted and produced an ITV documentary that became *very* popular called *The Mighty Micro*.

Source: YouTube

In this Evans predicts the rise of the computer revolution

> *"We're on the brink of the computer revolution. It'll run its course not in a century but in one or two decades. It's an era when well amplify the power of our brains many, many times in the way that the machines of 100 years ago amplified the power of our muscles."*

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He talks about microprocessors and how people know what they are, but not how impactful they'll be. It's well worth a watch as it very accurately looks at how our world will change thanks to these tiny technologies.

Thanks to this documentary and the insight it gave, the BBC took a far greater interest in programmes related to computers and the future of *microprocessors.*

The BBC went on to produce 267 programmes for viewing, and has a complete archive of clips, shows and information that you can still view today (here if you're interested).

Part of this project was also the commissioning of a new kind of computer it called the BBC Microcomputer System, or just BBC Micro for short. The aim was to get a BBC Micro into every classroom in the UK.

Source: Microbit.org

Maybe you were at school when these hit the market and hit the schools. We'd love to hear from you about your memories and experiences with these if you'd take the time to write in and let us know.

The BBC Micro was designed to allow kids to learn about programming and information which was then broadcast in the BBC programmes, providing a connection between the work at school and then the shows broadcast in the home.

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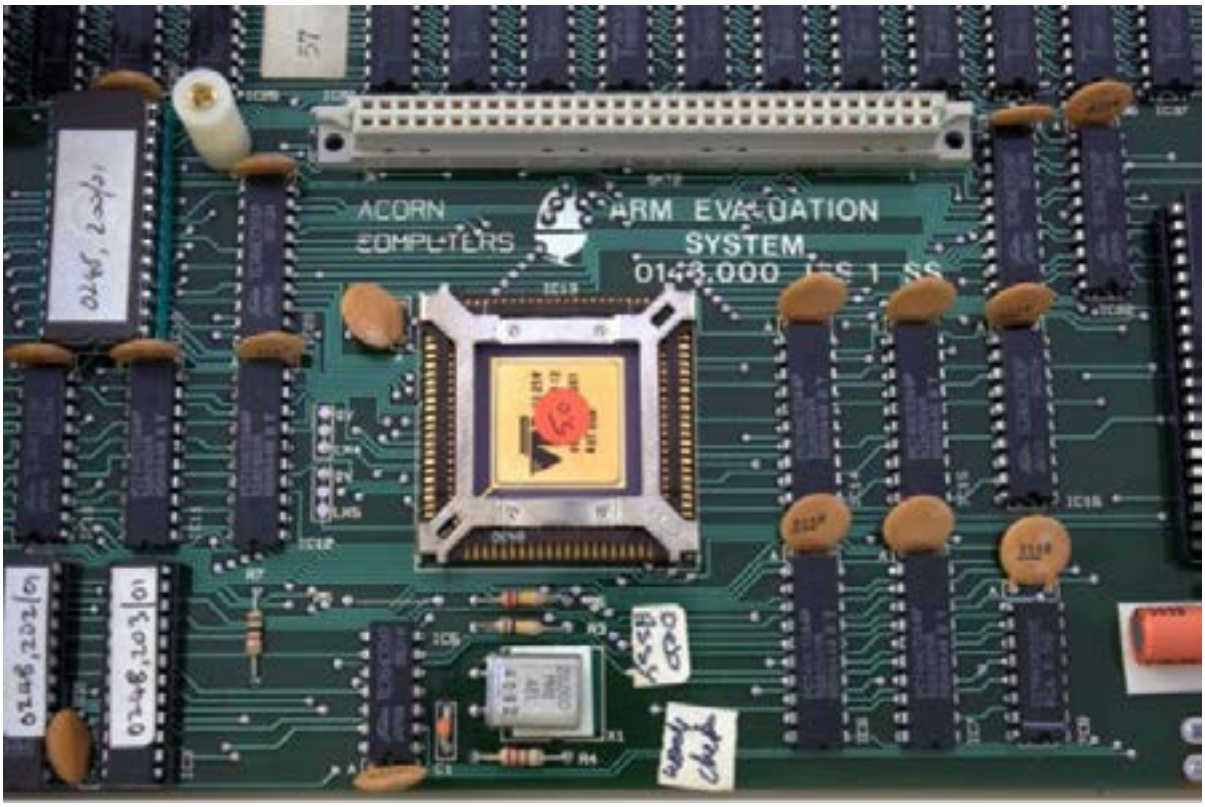
The BBC Micro was built by a small start-up computer company called Acorn which was founded by Chris Curry and Hermann Hauser. Its offices were based in Cambridge, where Hauser had received his PhD in 1977.

This little company was originally contracted to deliver 12,000 BBC Micros by 1982.

However by 1982 Acorn had sold more than 24,000. And by the time the BBC Micro's lifespan ended in 1994, over 1.5 million had been sold across the UK and Europe.

Acorn was also developing its own "chips" for these computers. You can see one of its early chips used in the BBC Micro here:



Source: Wikipedia Creative Commons – "Peter Howkins" – Own work

The name of this chip was the ARM1.

The success of BCC Micro of course meant that Acorn would go on to produce another microcomputer, the successor to the BBC Micro.

This would be known as the Acorn RISC Machine Archimedes. Or the ARM Archimedes.

And again Acorn was now in full development of its own architecture and designs for the chips to be used in these computers, including the ARM2.

However nothing quite led to the initial success and heights of the BBC Micro. And by the end of the 1980s, Acorn reached a fork in the road and made a decision that will forever go down in history.

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In 1990 Acorn spun out a separate company called Advanced RISC Machines (ARM). By now Arm technology was widely recognised as being at the forefront of chip design. Which led to a company called Apple getting involved with Arm.

And over the next decade Arm would closely work on chip design and licences to companies, like Apple for its computers and notably smaller handheld devices like the 1997 Apple Newton personal digital assistant (PDA) device – the forefather of the iPhone.

Such was the growing success of Arm's chips that by 2005 as the explosion of mobile phones gripped the world it's estimated that 98% of *all mobile phones sold worldwide* had at least one Arm processor in them.

And you've probably figured out by now that the company in focus today, and the company which designs what I call "The Britannia Chip", is Arm Holdings Plc (NASDAQ:ARM).

The greatest British company in history?

Quickly, grab your smartphone wherever it might be.

Or maybe if you're reading this on your smartphone, it's already in your hand.

What you are holding right now (your smartphone) is much, *much* more than what you might think. It is literally artificial intelligence *in your hand.*

It doesn't matter if you're holding an Android operating system phone, or an iPhone, or some other Chinese spy phone with another operating system (just kidding… or *am we*?).

Most likely it will have a function in there where you can just "ask" Siri/Alexa/Google/ President Xi any question you like and it will try find an answer.

Most people don't think of all this as "AI" but the truth is it's a form of machine learning that pulls on data from the internet, the cloud and data centres to find an answer to your question.

If you're on a computer too, you're probably running Microsoft Office, or you've got Dropbox, or use Slack for work.

All of these applications and devices now integrate AI in one form or another.

AI is *everywhere* already and most people are truly yet to wake up to exactly what that means, and, importantly, how it works and *who profits from the AI boom.*

Much like the early-to-mid 2000s, there's a pretty good chance that your smartphone has Arm technology inside. If you're running anything Apple, that chance is even greater.

And if you're on a device that uses any of Apple's M-series chips, M1, M2, M3 or the latest M4, then its 100% guaranteed that you're packing Arm there under the hood.

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When Apple recently announced its move into AI, it noted that "Apple Intelligence" would only be available on "Apple silicon" – namely its A17 Pro and M-Series chips.

Source: Apple WWDC24 livestream on YouTube

As my colleague, Sam Volkering, explained in an edition of *AI Collision*:

> *… what is Apple silicon? Let me try to break it down for you…*
>
> *The Apple M series chips, including the M1, M1 Pro, M1 Max, M1 Ultra and M2, are Apple's "custom" silicon designed specifically for its Macs and iPads.*
>
> *These chips are thanks to detailed engineering from Apple's in-house teams but they also very much rely on Arm architecture and advanced manufacturing processes from TSMC.*
>
> *Apple's M series chips are based on ARM (NASDAQ:ARM) architecture, specifically ARMv8 and ARMv9. ARM provides the architecture and design blueprints for these processors that are widely recognised for their high efficiency and low power consumption.*
>
> *That makes them ideal for devices like iPads, iPhones, and compact devices like Macs and MacBook.*
>
> *Apple licenses the Arm architecture and that's when it takes it in-house, and designs its own custom CPU and GPU cores based off ARM tech. This means that while Apple uses Arm's architecture as a starting point, the final design and performance characteristics of the M series chips are unique to Apple.*

Not only is this the perfect example of how a company like Arm generates their revenues, but it also shows just how important Arm is to the rollout of AI technology.

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But it's not just Apple that's reliant on Arm, and not just smartphones that Arm is suited for.

Microsoft is pushing forward on its next lineup of PCs that will all be branded with Copilot+.

This means Microsoft PCs will be inbuilt with its AI, Copilot, and even have a dedicated Copilot button on the keyboard to quickly and easily call up their AI to help you with things.

And what is the chip architecture that these will all be based off? Yes, it's Arm.

This is the integration of AI into our lives in a very easy and seamless way that we've been writing about for several years now. And interestingly what we're seeing develop today is very much like those early days of the BBC Micro, in that at the core of all this are the "chips" enabling this future to take place.

And with these Microsoft AI PS, with Apple's "Intelligence" and like the BBC Micro, it is Arm technology that is the heartbeat of it all. Qualcomm, Samsung, Apple and Microsoft are just some of the big names that lean on Arm for their existence. But there's one more that maybe even isn't the company it is today without the backbone of Arm tech behind it.

The failed Nvidia takeover

Nvidia has long been a partner of Arm. In fact, its Tegra chips were all Arm based. Tegra has been used in the automotive industry for decades now. You'd be hard pressed to find a car on the road today that doesn't pack some form of Nvidia Tegra kit in it, which is all based on Arm system-on-a-chip (Soc) technology.

More recently Nvidia's Grace CPU, a key piece of technology for their datacentres and rollout of AI into datacentres, and their first ever data-centre-specific CPU, is again all based on Arm.

The rumours are that by the end of the year another new Arm-based chip it dubs "Blackhawk" will come out and combine with Nvidia's Blackwell GPUs for the most cutting-edge chip set for our AI-enabled world to date.

In short, Nvidia and Arm go hand in hand.

So much so that in 2020, Nvidia announced its intent to acquire Arm Holdings from SoftBank for $40 billion (Arm wasn't listed at this point, but owned by Softbank).

The proposed acquisition raised significant concerns among Arm's customers and competitors, as it would have given Nvidia control over critical technology used by many of Arm's rivals.

Regulatory hurdles and opposition from multiple quarters, including companies like Qualcomm, Microsoft and Tesla (Elon was quite vocal in his disapproval of the deal),

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meant that ultimately the deal stalled, and then in 2021 collapsed.

But here's the thing. If a company like Nvidia was hell bent on buying up Arm, right in the midst of its own strategy pushing hard down the AI chip pathway, clearly it saw something and knew something that the rest of the world didn't.

Then again, for 40-odd years Arm has been at the pinnacle of microprocessors, semiconductors and the latest in high-performance technology. There's no indication that this British company that exists right in the heart of this country and is a global *powerhouse* of technology is reversing gear any time soon.

In fact, we expect that even with an eye-watering valuation of $140 billion that Arm is on track to become the first British company in history to reach a valuation of $1 trillion.

The path to $1 trillion

When you've got a roll call of customers like Microsoft, Apple, Qualcomm and even Nvidia, it's fair to say you're a critical piece of the world's technology puzzle.

As we continue down this path of AI technology rollout, increasingly the news flow on next generation chips indicates that much of it is going to be thanks to Arm.

But as I say, it comes with an eye-watering valuation already.

At a market cap of $147 billion and at a price-to-earnings ratio of 342, there's plenty of sceptics that suggest ARM is already grossly overvalued.

From a purely quantitative perspective, that might very well be the case. And you should factor in that risk when considering buying the stock or not.

They might be right. That based purely on the value analysis of the company and its financial position on current earnings, it's pricey.

But that's not what we're basing our judgement on here entirety. Yes, that's a factor, and it should be noted that for the full year 2024 (ending 31 March 2024) it reported net income of $306 million.

It's easy to do the maths on that to see the 250-times earning and $170 billion valuation being hard to absorb. But our expectations are that investing in Arm is not all that different to investing in Nvidia four or five years ago, coincidentally enough around when Nvidia itself was trying to buy Arm.

And we guarantee you this: when Nvidia was a $168 billion company back then, the idea of a $1 trillion valuation (and then some) was well off the radar too. But the speed in which AI technology is not just rolling out, but also developing, we don't think is yet fully appreciated by the market and investors.

While Arm is not exactly the same kind of company, our experience indicates that it carries the same kind of hallmarks that Nvidia has going back a few years.

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Namely that it's often overlooked and it's not very well understood unless you're either involved in the industry or have a long-standing history of understanding the company.

Investors take a cursory look at it and just assume it's overvalued. But then when you're able to see its importance in the future of technology and high-performance computing, you can see demand for its tech isn't going away.

We also believe you can draw a parallel with Nvidia. Demand for Nvidia chips is only heading north, and its next generations of chips will improve on what is already a wide technology moat. That's all based heavily on Arm as well. We expect that Arm will ride the Nvidia coattails and continue to increase revenues, increase royalties and increase its net profits, plus smash analyst expectations as it's repeatedly done over the last year – just as Nvidia has done year on year for the last few years.

Add the fact Nvidia is just one customer, and the likes of Apple and Microsoft and their involvement is only getting deeper, and for us, Arm is and should be the cornerstone of any British investor's portfolio for the long term.

We'd go so far to call it the greatest British company in history and as we say above, quite possibly it could be the first to reach a trillion-dollar valuation over the next five years.

Risks

As we've seen, from a *purely* quantitative aspect, Arm looks overvalued. We don't see it that way, but the market can move the stock price harder than our views can.

We've seen with Nvidia what a dash of negative sentiment can do to a valuation in a short space of time, wiping *billions* off valuations.

Arm is not immune to this. Should the AI train decide to park itself at a station for a while, or at least the excitement around the investment theme taper off, we would expect a period of Arm's stock price trading sideways, and quite possibly lower back towards the $100 mark.

Furthermore, in the last year Arm's stock price has tripled. Yes, it's already shot out the gates, after listing on the Nasdaq in 2023 after a long and drawn-out highly anticipated IPO.

You see Arm used to be traded on the London Stock Exchange. Remember, it spun out of Acorn in the 90s. It also listed on the LSE. It would go on to then be taken private and owned by Japanese conglomerate Softbank. That also led to the attempted Nvidia buyout.

But with that thwarted, and Softbank wanting to cash in some chips (long story there for another day), Arm listed on the Nasdaq.

And it's gone from strength to strength since. Partially because of the rise in AI and also because of its long-standing and highly impressive customer base. And also a little bit because Nvidia itself has disclosed it owns around $150 million worth of Arm now anyway.

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Is a future Nvidia takeover on the cards? Probably not. It would be tough to get it past regulators. But it does prove that Nvidia and Arm are stitched together seemingly for the long term.

But that comes with risk too. Maybe Nvidia's tech gets caught up to by the likes of AMD? Maybe it divests its stake in Arm?

Maybe an Arm competitor, like Intel, ups their game and starts to become more relevant again? We must also consider that Arm, as important as it is, is a direct competitor with Intel.

And Intel has long-standing relationships with big tech and is a key supplier of chip technology to the world. We don't see Intel leapfrogging Arm, not now anyway. And while AMD might catch up to Nvidia, we also don't see a leapfrog taking place.

But it must be considered we can be wrong, and that both competition and technology risk come into play here, which could adversely impact Arm's stock price.

Buying instructions

Risks considered and understanding Arm's history and deep involvement in the future of AI and future technologies to be rolled out by the world's leading big tech companies, we think long term Arm is a company to hold in your portfolio.

It is inherently British, one of the country's greatest success stories that is often overlooked as important to Britain and the world, but yet is as important as names like Newton and Hawking are.

Action to take: BUY Arm Holdings (NASDAQ:ARM). Buy up to $175. Set a stop loss position at $80.

James Allen
Editor, *Southbank Growth Advantage*