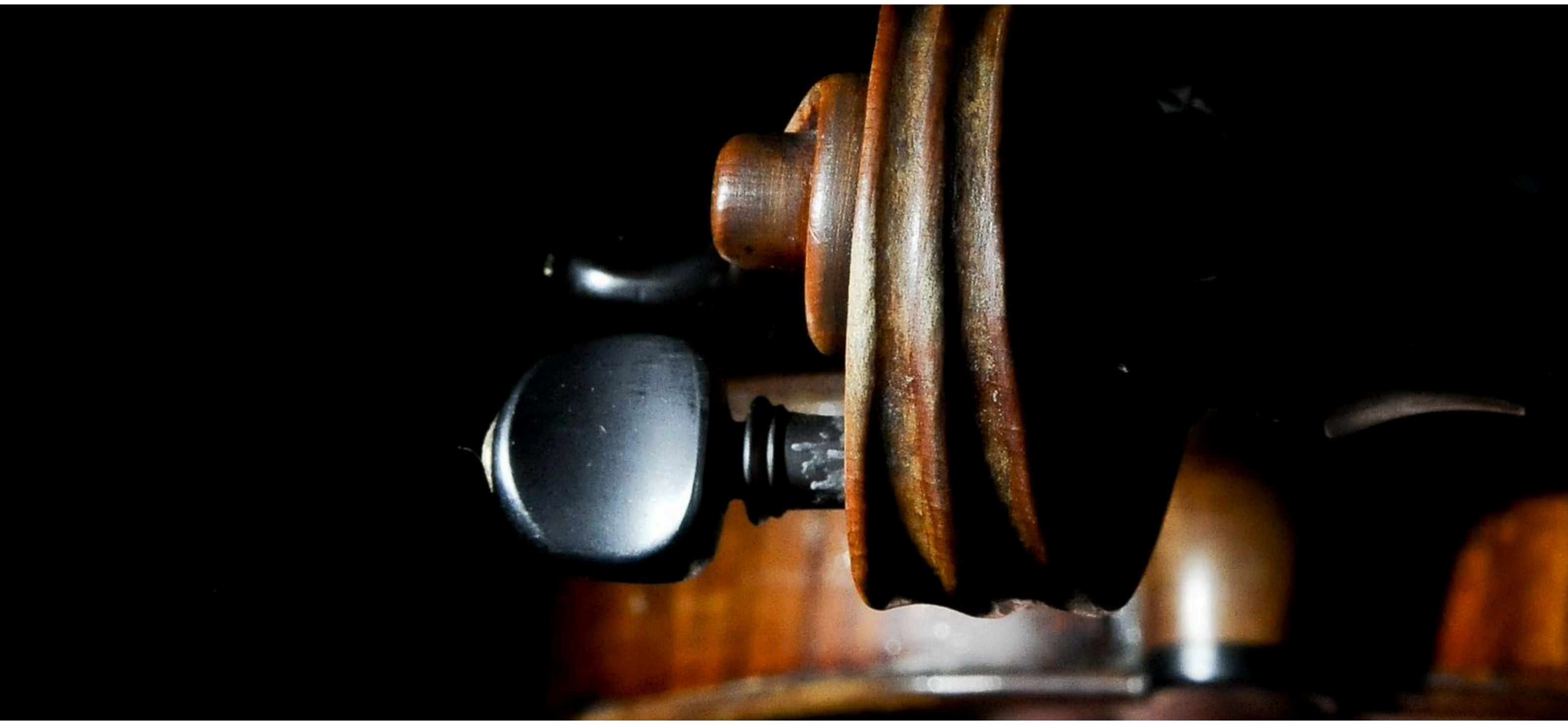
AMATI GLOBAL INVESTORS

Newsletter

Winter 2024: Issue 28



Au Revoir Olivia

Sadly we are having to say goodbye to Olivia Pattison at the end of the month. Olivia, as many of you will know, has supported investors of our funds over the last 4 years. She has decided to take a break from the UK and is moving to Sydney in January for a change of scene and understandably for a bit of guaranteed sunshine. From everyone at Amati, we wish her all the very best and hope that she has an amazing experience - you will be sorely missed !

Cake courtesy of the talented Inez Ling

BrightTALKs

Upcoming Webinars

9th January 2025, 11am - Another 'BRICS' in the Wall - the implications of a Trumpian Red Wall - to register please **click here**

In case you missed our latest webinars, please click on the links below

AIMing Higher - WS Amati UK Listed Smaller Companies Fund

Post Budget Recovery in AIM - Amati AIM IHT Portfolio Service

Amati AIM VCT Portfolio Update

Navigating innovation portfolio through a volatile year - WS Amati Global Innovation Fund

Expert Insights

Dr Paul Jourdan was invited by Bentley Reid (an investor in our UK smaller companies fund) to offer insight into the sector (hosted by Damian Horner of Vision Creative Labs) - to tune in please click here

AMATI GLOBAL INVESTORS

Amati AIM VCT

Dividend Announcement

Please note that the Board of the VCT has declared a second interim dividend of 1.5p and is recommending a special dividend of 2.5p payable on 17 January 2025 to shareholders on the Company's register of members at the close of business on 20 December 2024. The ex-dividend date will be 19 December 2024.

Amati AIM VCT plc (the "Company")

Legal Entity Identifier: 213800HAEDBBK9RWCD25

Dividend Declaration

As noted in the recent RNS regarding the outcome of the strategic review and despite more than initially expected AIM fund raises this year, challenging market conditions continue on AIM. Having had a number of disposals of qualifying holdings, one of which was the largest qualifying investment in the Company's portfolio, along with some partial disposals of other holdings, this has resulted in realisations of around £15m during the Company's financial year to date. New qualifying investments have so far amounted to £9.5m. Following discussion with the Investment Manager and the Company's advisers, the Board is therefore choosing to accelerate the timing of dividend payments this year via the declaration of a second interim dividend of 1.5p. The Board is also recommending a special dividend of 2.5p. Cash and current asset investments are held mainly in a combination of interest bearing overnight bank deposits and money market funds. This will still leave cash and current asset investments representing around 19% of the Company's Net Asset Value, prior to the potential takeover of Learning Technologies.

Both the Second Interim Dividend and the Special Dividend will be paid on 17 January 2025 to shareholders on the Company's register of members at the close of business on 20 December 2024. The ex-dividend date will be 19 December 2024.

Dividend Re-Investment Scheme ("DRIS")

There will be no DRIS available with these dividends.

Enquiries:

Fiona Wollocombe, Chair

Amati AIM VCT plc

Email: AmatiAIMVCTChair@amatiglobal.com

Conclusion of Amati AIM VCT Strategic Review

Amati Global Investors Limited ("Amati") has received notice of the termination of its contract to act as discretionary fund manager of Amati AIM VCT plc ("Amati AIM VCT" or "the Company"). This notice was served by the Board of the Company on Monday 2 December. Amati will continue to act as fund manager for Amati AIM VCT for the duration of its notice period, which is twelve months.

The decision that the Amati AIM VCT Board arrived at following their review was not the outcome that we at Amati had hoped for as we would have liked to have had the opportunity to continue managing the VCT.

The timetable for a vote on the potential change of investment policy has not yet been set and the Board will send out further details to shareholders on this in due course.

All of us at Amati would like to assure investors that we remain completely committed to managing Amati AIM VCT during the notice period in accordance with its existing strategy. Should you wish to contact Amati on the above, please email info@amatiglobal.com. The Chair of the Board is also welcoming feedback & questions from shareholders via email at AmatiAIMVCTChair@amatiglobal.com.

Paul Jourdan, CEO of Amati Global Investors, commented: "Managing Amati AIM VCT and its antecedents for close to 20 years, starting with the launch of First State AIM VCT in 2005, has been a great privilege. We are naturally disappointed with the outcome of the review. I am personally hugely grateful for the support from investors over this long period."

To view the announcement from the Amati AIM VCT Board, please **click here**

AMATI AIM VCT

Windar Photonics

Written by
David Stevenson

Windar Photonics is a leading player in wind turbine optimisation, achieved through LiDAR (Light Detection and Ranging) sensor technology, which offers material improvements in power output and financial returns.

Following an extensive investment in R&D, Windar's technology is unrivalled in its ability to integrate with already installed turbines. It represents a "plug & play" solution, without the need for bespoke modification by turbine manufacturers. This gives the company a key competitive advantage in its core retrofit market. The technology detects and corrects turbulence, wind shear, gusts and yaw, which are major operational issues. The improvements have knock-on benefits for maintenance costs and turbine life.

A key advantage lies in Windar's relative cheapness, through using semiconductor lasers rather than fiber, plus the sensor's integrated software which works for multiple turbine designs. Other LiDARs only measure wind speed and direction, whereas Windar's technology allows for real time turbine corrective positioning. This opens up data analysis as an additional opportunity, and Windar is now offering its Nexus platform software to generate upfront licence fees and annual recurring revenues.

With c1000 installed LiDAR units going back to 2012, Windar can lay claim to proven gains of 3-4% in Annual Energy Production ("AEP"), and a highly compelling payback of less than 1.5 years to the turbine asset owner.

With energy security a key global focus amidst the continuing commitment to renewable transition, Windar is selling into an ever-growing new installation market while also benefiting from a significant retrofit opportunity in key geographies including North America, China and Australia. There is currently an installed base of 500,000 onshore turbines globally, with about 55% in China, and 20% across Brazil and the US. Onshore represents 94%. Windar's technology can be fitted offshore, but that market involves fewer, larger turbines and so it is not a priority. The next generation, designed-in, market will take some years to develop since turbines have a 15–20-year life and turbine pricing has been a race to the bottom so far, and so upgrade extras have not featured with cost-conscious manufacturers.

Windar has a key Global Distribution Agreement with the market leader in wind turbine site management, Vestas Services ("VS", a subsidiary of turbine manufacturer Vestas). VS manages 55,000 turbines globally, and after successful field test results in 2021 this led to volume orders for Windar in North America, and then Australia and Japan in 2022. The most recent contract was won without any field testing, because the US customer has been convinced by two other deployments as reference sites. Importantly, 10% of the contract value is for the Nexus platform software, which is a breakthrough for recurring revenues.

This is an example of a VCT qualifying company which has been around for a long time, has had some problems but survived, and is now showing real commercial traction. Windar was previously run on a very tight budget, and our VCT initially invested in April 2024 as part of a fundraise to improve financial strength and recruit more operational resource. This was recently followed by a further raise in November, to provide for new sales channels and ongoing Nexus development. The shares have responded well to the news, reflecting the significant future opportunities open to the company.

Windar Photonics is held in the Amati AIM VCT and represents 1.95% of the portfolio as at 19 December 2024

WS Amati UK Listed Smaller Companies Fund
AMATI AIM IHT

Kitwave

Written by
Scott McKenzie

Kitwave is a wholesaler supplying food, beverage and tobacco products to convenience grocers (55% of profit) and foodservice venues (45% of profit) across the UK. The company listed on AIM in May 2021 and is one of the few successful IPO's from that period, rising from its listing price of 150p to 315p today. We invested in the company at IPO for our AIM IHT Service and added it to our UK Listed Smaller Companies fund in September, participating in a £31m equity raise for the acquisition of Creed Catering.

Kitwave has established a nationwide network of more than 30 distribution outlets and over 600 vehicles, serving its clients with a delivered model as opposed to a cash and carry one. Despite the economic challenges many of its customers have faced in recent years, Kitwave has continued to prosper, using a 'buy and build' strategy to benefit from scale in what is a very fragmented supply base, particularly with regard to hospitality food service. Whilst inflation across food and beverage products has been elevated in recent years Kitwave has been able to pass on headline price rises quickly, without damaging margin.

It has been able to buy small private businesses at low valuations, immediately enhancing earnings whilst keeping local management in place. The synergies from such transactions are generally quickly achievable and the acquired businesses are typically private and already well known to the Kitwave team. At a £60m upfront cost the acquisition of Creed Catering is their largest transaction yet and is the fifth transaction completed since the IPO. All of the acquisitions have come in the foodservice division where the group enjoys higher margins than its original core business in convenience retail and where the supply base is highly fragmented and the opportunity to grow greater. Including Creed the business has now spent more than £140m since IPO on building this foodservice presence but, despite this, Kitwave has a market share of less than 5% and a current market capitalisation of only £260m.

Whilst it operates in a relatively unglamorous sector Kitwave has already built a strong reputation amongst investors for under-promising and over-delivering. With the shares trading on a low valuation and the benefits of the Creed deal still to come we see a bright future ahead for the business and scope for positive earnings surprises as we enter 2025.

Kitwave is held in both the Amati UK Listed Smaller Companies Fund (SMCO) and the Amati AIM IHT Portfolio Service (AIHT). At 19 December 2024 it represents 1.4% in SMCO and 1.7% in AIHT

Investment markets and conditions can change rapidly and as such the views expressed should not be taken as statements of fact nor should reliance be placed on these views when making investment decisions. Past performance is not a reliable indicator of future performance

WS AMATI STRATEGIC METALS FUND

Perpetua Resources

Written by
Mark Smith

One of the key investments made by the Fund this year has been in Perpetua Resources. Perpetua Resources is a NASDAQ and TSX company owning 100% of the past-producing open-pit gold-antimony Stibnite mining project in Idaho, USA. Anybody with experience of trying to permit a mining operation in the USA will testify that it can be a very long and laborious process, often taking more than 10 years. During this period, the share price tends to drift sideways to lower until the issuance of the permit is in sight. This project has had its own particular challenges given a long history of arsenic and sediment pollution in the rivers and streams surrounding the mine in the 1930's and 1940's with the blockage of 20 miles of salmon migration habitat. With modern mining methods, these practices can be mitigated and the historic site cleaned up.

The emergence of antimony – a by-product of the mining operation (5% of total revenue at today's prices) – as a national strategic asset to the US has helped to accelerate the process of bringing all stakeholders together to sign off on a mining plan that will have the least impact on the environment while guaranteeing the US supply of antimony. From 1941 to 1945, the Stibnite mine alone produced 40 percent of the nation's domestic supply of tungsten and 90 percent of its antimony.

Figure 1 – 2024 – a year full of catalysts for PPTA

Source: Refinitiv

Critical de-risking milestones were achieved in 2024 resulting in the shares rallying more than 300% over the course of the year. In February 2024, in association with the project's antimony potential, Perpetua was granted a further US$35m in funding under the existing Technology Investment Agreement (TIA), for "in-scope work for advancing permits and construction readiness". This brought the total amount of unconditional grants from the US Department of Defense to US$75m.

In March, Jon Cherry was appointed as CEO, which was seen as important for the credibility of the mining plan proposed at Stibnite, as well as the ability to get it permitted. Jon has over 33 years of extensive mining industry experience including permitting, capital raising, project development, joint venture formation, and operations. He most recently served as Chairman, President, and CEO of PolyMet Mining.

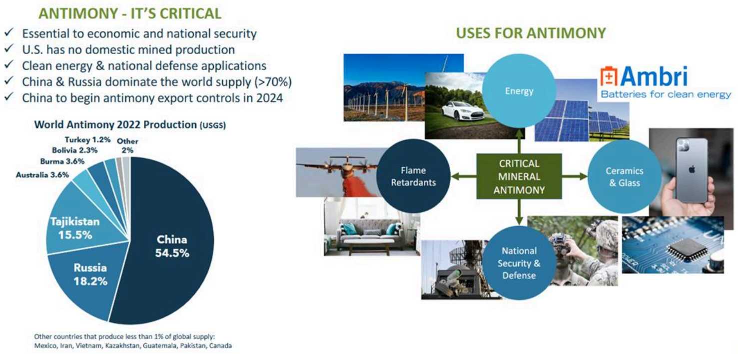
During his tenure at PolyMet, the NorthMet project received the highest rating the Environmental Protection Agency has ever given to a mining project. Before Polymet, Mr. Cherry served as a senior leader for the multi-billion dollar Resolution Copper JV Project (owned by Rio Tinto and BHP), General Manager of Rio Tinto's Eagle Mine (the United States of America's only primary nickel-copper mine) and Senior Project Engineer at Rio Tinto Kennecott Utah Copper.

Another key catalyst took place in April 2024, when the company received a letter of interest (LI) from the Export-Import Bank (EXIM) of the United States for potential project debt financing of up to US$1.8 billion through EXIM's "Make More in America" and "China and Transformational Exports Program" initiatives – an early indication of the US authority's tacit support for the project. The potential EXIM project financing support directly relates to the antimony by-product (critical for munitions) that will be produced at the project. The up to US$1.8 billion of potential financing should fund the vast majority of the project's upfront capital requirement, significantly reducing a large financing overhang. Following the ROD, the Company will submit a formal application to EXIM pertaining to the project debt funding.

In September, the Final Environmental Impact Statement (FEIS) and positive Draft Record of Decision (DROD) for the Stibnite project was granted following 14-years of scientific study and community engagement, 8-years of Federal permitting under the National Environmental Policy Act (NEPA), and 150-days of formal public comment periods during which over 28,000 letters were received and addressed/answered. A 45-day objection period followed the filing of the DROD (which ended in November).

The company is currently progressing through the final 45-day resolution period (expected early January 2025), after which point the ROD should be published. This would then complete the Federal permitting process. The final two periods are seen as formalities given the extensive consultation period that took place before the DROD. However, the publishing of the ROD is still seen as a major catalyst for the share price.

Figure 2 – Antimony is reestablished as a national strategic asset



Source: Company presentation

In November, China announced an outright ban on exports of several materials with high-tech and military applications, in a tit-for-tat move after US President Joe Biden's government escalated technology curbs on Beijing. Gallium, germanium, antimony and superhard materials (tungsten) are no longer allowed to be shipped to America, according to China. This came as the White House slapped fresh curbs on the sale of high-bandwidth memory chips made by US and foreign companies to China as the US intensified its campaign to contain Beijing's technological ambitions. China's response targets metals used in everything from semiconductors to satellites and night-vision goggles. What makes PPTA such a standout, is the US military's desperate need for antimony. China, Russia & Tajikistan account for ~90% of the world's antimony supply (figure 2), and the US military has historically been heavily reliant on China on source its antimony (specifically from the Hsikwangshan Twinking Star mine). While the US has tried to go to more friendly sources in recent years - India for example - it requires a specific quality level that only China and one other mine can produce – the mine owned by Perpetua, which has a long history of supplying the US military.

The military requires a very specific type of antimony trisulfide called stibnite, and stibnite has become exceedingly difficult to find (although of massive importance to ensure military ammunition and explosives integrity). Once in production, Perpetua will be able to supply 35% of the military's annual antimony demand.

The final catalyst came last month with the appointment of Donald Trump as President-elect. Trump has pledged to expedite permits and approvals, including environmental clearances, for any individual or company investing $1 billion or more in the United States, aiming to accelerate the development of energy and infrastructure projects. Announced via his Truth Social network, Trump's commitment aligns with his broader agenda to boost domestic energy production and reduce regulatory hurdles that he claims have stifled economic growth.

Key for us is always the quality of the assets and the economic justification for any investment. Stibnite, with gold reserves of 4.8 million ounces, is the largest project in the USA, not held by a major mining company. The 2020 feasibility study showed a production rate of 463,000 ounces of gold in the initial four years with a life of mine production rate of 297,000 ounces, making it one of the US's largest gold projects. The project's high grade and low strip ratio will place it with all-in sustaining costs well in the lowest quartile (figure 3).

Figure 3 – Lowest quartile all in sustaining costs

Source: Company presentation

The 2020 Feasibility Study (figure 4) indicated a robust project even assuming an average gold price over the life of the project of US$1,600/oz, with a projected IRR of over 22%, and a payback period of 2.9 years. There is little doubt that the revised capital expenditure figure will be closer to US$1.9bn given mining cost inflation over the past five years. However, the low operating cost structure and strong EBITDA projections makes Perpetua an appealing takeover target.

Perpetua Resources

WS AMATI STRATEGIC METALS FUND

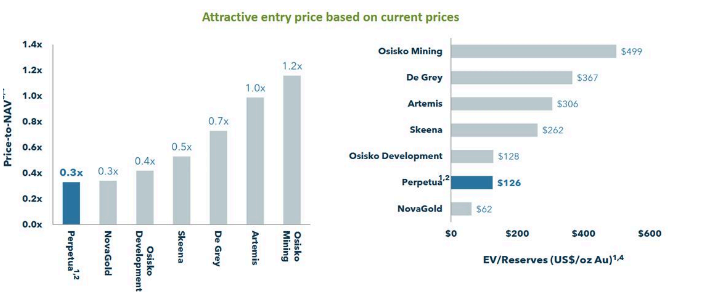
Figure 4 – 2020 Feasibility Study

Component	Early Production Years 1-4	Life-of-Mine Years 1-15
Total Recovered Gold	1,853 koz	4,238 koz
Total Recovered Antimony	74 Mlbs	115 Mlbs
Average Annual Recovered Gold	463 koz/yr	297 koz/yr
Cash Costs Net of By-Product Credits[2]	$328/koz	$538/koz
All-in Sustaining Costs Net of By-Product Credits[2]	$438/koz	$636/koz
Initial Capital including Contingency	$1,263 million	
$1,600/oz gold - $20/oz silver - $3.50/lb antimony		
After-Tax Net Present Value at 5% Discount Rate	$1,320 million	
Annual Average EBITDA[2]	$566 million	$292 million
Annual Average After Tax Free Cash Flow[2]	$500 million	$242 million
After Tax Internal Rate of Return	22.3%	
After Tax Payback Period	2.9 years	
$1,850/oz gold - $24/oz silver - $3.50/lb antimony		
After-Tax Net Present Value at 5% Discount Rate	$1,864 million	
Annual Average EBITDA[2]	$678 million	$360 million
Annual Average After Tax Free Cash Flow[2]	$584 million	$295 million
After Tax Internal Rate of Return	27.7%	
After Tax Payback Period	2.5 years	

Source: Company presentation

Despite the strong share price performance this year, the valuation of the company still looks appealing based on broker average (figure 5), which assumes longer-term gold prices of around US$2,000/oz. The key figure to look at is the Enterprise Value per reserve ounce and compare it to De Grey Mining, which was recently taken over by Northern Star. Perpetua is a far lower cost and less complex project than De Grey Mining.

Figure 5 – Valuation still very appealing



Source: Company presentation

The WS ASMF has a portfolio exposure of 3.7% to Perpetua (as at 30/11/2024). Should the gold price remain above US$2,000/oz for an extended period, we would expect gold equities to significantly rerate and close the implied discount to the gold price, which we estimate to be>US$600/oz at the moment. In addition, with the strong gold price that we have seen in recent years, the tier 1 gold companies are in a much stronger position to conduct M&A. Put simply, there are not too many 5Moz gold projects in a safe jurisdiction with all-in sustaining costs well below US$1,000/oz.

Perpetua Resources is held in the Amati Strategic Metals Fund and represents 4.2% of the portfolio as at 19 December 2024

The WS Amati Strategic Metals Fund invests in companies that have operations in developing markets and which therefore may be subject to higher volatility due to political, economic and currency instability.

WS AMATI GLOBAL INNOVATION FUND

RFID Technology: the ultimate "internet of things"

Written by
Mikhail Zverev

The most ubiquitous chip.

Chips are everywhere, and some semiconductor companies such as NVidia have become almost household names, prominent in news headlines and investor conversations. Yet one of the most ubiquitous semiconductor products around, RFID chips, remains relatively obscure. We don't think this will last long. Over 100 billion of these chips have been shipped since 2010, growing at nearly 30% per year according to the RAIN RFID industry alliance. These devices can be found in many everyday products, from car tyres to clothes, and are likely to become significantly more widespread in the coming years.

In this paper we look at the history of this technology, the impact it is already making on global industries and some exciting new applications and opportunities ahead.

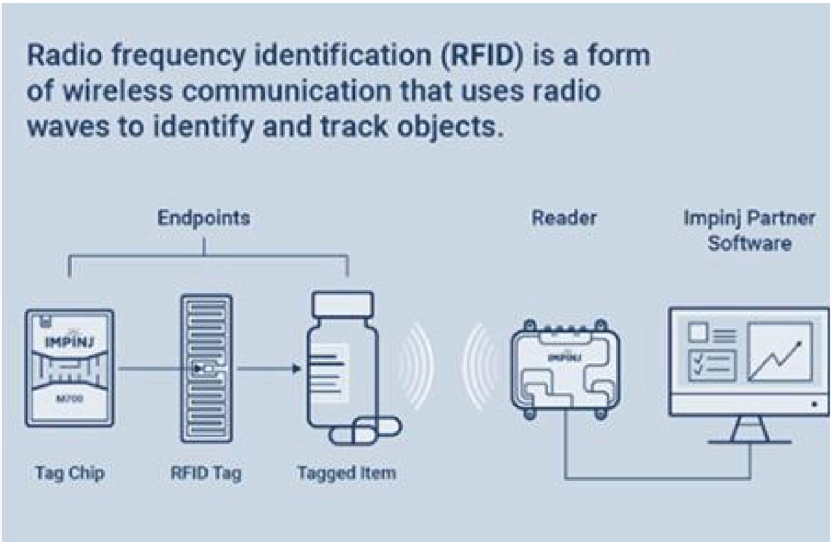
History of war and espionage.

Like many technological breakthroughs before it, RFID technology started life in warfare and geopolitical conflict.

It was simultaneously developed by British engineers and Soviet spies. In wartime Britain, it was a by-product of radar technology, when operators noticed that the radar signature of returning British planes could be altered to help discern friendly from incoming enemy aircraft. This was engineered into RAF "Identification friend or foe" (IFF) technology, becoming a first "passive" radio identification system working on the reflection of incoming radio waves.

Meanwhile, in Moscow a listening device disguised as a wood carving was planted by the Soviet intelligence in the US Embassy. It contained a microphone and a passive radio circuit which, when "illuminated" by the radio waves from outside the building, broadcast the conversation in the room. Like the British IFF technology, this bug used external radio waves to "energise" the device to transmit the information back to the listener. This principle remains at the heart of the modern RFID technology, even though its uses today are a lot more benign.

Antennae for IFF Mark II on the side of the British Spitfire aircraft *(Source: Wikipedia)*



Principles of RFID technology *(Source: Impinj)*

The tipping point in RFID adoption

Chip costs have plummeted as the technology has advanced, making RFID a viable solution for many high volume applications. RFID chips themselves can be as cheap as 1 cent, or up to 3 cents if encapsulated in a label or tag. This is cheaper than the barcode, according to industry experts, once the labour cost of scanning is factored in.

RFID technology is far superior to many previous labelling or tracking alternatives: labels can be read from up to 30 feet away, with no line of sight, in the dark, at speeds of up to 1,000 labels per second. No wonder the technology is rapidly proliferating across industries. Many of our readers will have encountered the most consumer-facing RFID use case – automated retail store self-check-out. From sports retailer Decathlon to fast fashion retailer Uniqlo (below), consumers simply put their shopping in a RFID-enabled bin and all their purchases are added up to a final bill. No more manual scanning of bar codes or waiting in the queue for the check-out assistant.

Uniqlo RID self-checkout station *(Source: Impinj)*

Another retail use is “loss prevention”, a polite industry term for combatting shoplifting. Once the goods are paid for, RFID tag is wirelessly switched into “paid” status, and shopper can walk out. If not, the tag triggers the alarm at the reader gate. This avoids the complexity and cost of attaching and removing magnetic tags and means stolen goods cannot be returned.

Behind the scenes, RFID also helps inventory tracking. Inventory accuracy is a big pain point for the industry. A recent study found that RFID increased inventory accuracy from 63% to 95% - a dramatic improvement, helping locate the inventory and avoid running out of stock. RFID projects in retail boast very high returns on investment and short payback periods.

Inventory Control with RFID scanner *(Source: Zebra Technologies)*

Leading global retailers, from Uniqlo to Zara to Wal-Mart are adopting RFID across their merchandise categories. Wal-Mart is effectively mandating all of its suppliers to become RFID enabled – likely leading to the domino effect of adoption across the industry.

Logistics is another application. UPS is rolling out RFID across its global parcel operations. Tags are already embedded in its shipping labels, while readers are installed in its warehouses, loading bays and soon its delivery trucks. This reduces the “mis-shipment” rate, shipping parcels to the wrong address, from as frequent as 1-in-400 to 1-in-1,000 or better. UPS has estimated that RFID technology will help it save up to $500 million in annual costs.

Specialist and emerging use cases.

Some RFID applications are niche but transformative for the industries they serve.

The tyre industry is embedding RFID inside tyres. This helps with inventory tracking and authenticity control, and it can help manage tyre re-treading. Commercial vehicle tyres can only be safely refurbished a few times. RFID tag information helps retread the tyres with the right materials and in compliance with the safety rules.

In auto assembly, RFID is used in connectors throughout the vehicle. RFID tags are activated when the correct assembly connection has been made. Readers at the end of the assembly line can instantly check the connection integrity of multiple points in the car, streamlining quality control.

Exciting new large volume applications are beginning to open up as well.

Healthcare is one – the industry is conservative and heavily regulated but is beginning to recognise the huge value that RFID technology can bring through inventory control and tracking, medicine authenticity control and even point-of-use checks before the medicine is injected or infused into a patient. Specialist pharmaceutical packaging companies, such as Schott Pharma (below) and Gerresheimer, are incorporating RFID tags into their vials and syringes.

Schott Pharma RFID enabled pharmaceuticals packaging
Source: Schott Pharma.

Even food, potentially the largest market by units, is now within reach. Supermarket chains are looking to tag the packaging for bakery products, to ensure that the store keeps tabs on the freshness and expiry dates. Here, the prize is avoiding food waste, estimated to cost as much as 1 billion dollars per year to some of the largest retailers.

Ambient Internet of Things and RFID in every smartphone.

The industry has an even bolder vision. RFID Technologists talk about an "ambient internet of things", a collection of tags and beacons wirelessly communicating with each other, their users and the cloud to create a permanent picture of the world around us, where location and status of everything is known, monitored and which drives insights, productivity, sustainability and efficiency across industries. Part of that vision involves putting RFID technology into phones: 5G antennae can already operate on RFID frequency and incremental software and the hardware content needed to enable this is minimal.

Imagine the world where a device in our pocket can locate any object in our lives that's tagged with RFID tags (subject to obvious privacy and safety guardrails). This tantalising prospect is still some way away, but the industry is actively pursuing it.

Consumable semiconductors and after-market revenue streams.

Not only is RFID the most ubiquitous of chips, but they also bring the most recurring revenues. Usually, the best semiconductor investors could hope for is to have their chips in smartphones – those refresh every 2-3 years. PCs and servers have longer refresh cycles, and industrial and auto applications replacement times can take over 5 years. With RFID, every Zara jumper or UPS parcel uses a chip. This is a better quality of revenues and earnings – consumables, not durable goods. It can get even better: the industry is working on after-market revenue models. One such opportunity is authentication. RFID chips can carry a cryptographic key that can be cross-checked with the product record in the cloud, to confirm that a vial of medicine or a luxury handbag are authentic. This brings a transaction fee which would be multiplied by millions of units in the field. This is even better than the traditional chips business model.

Consolidated industry with deep moats.

We often find that when niche technologies hit prime time, their underlying industries have a reassuringly consolidated structure. Small markets cannot sustain many players, and many years of R&D tend to result in proprietary IP or know-how. When the tipping point occurs, accelerating growth accrues to these long-suffering specialist suppliers whose time has finally come. RFID looks to be such a case. Only two companies in the western world are credible suppliers of RFID chips – US listed Impinj and a division of NXP Semiconductors. The two companies had an IP dispute, which has been resolved in Impinj's favour, showing the strength of its IP.

Despite their diminutive size, RFID chips are a complex technology – they need to be cheap, tightly packed on a wafer and function reliably in a variety of real world conditions, where moisture, obstructions and mechanical and thermal stresses abound.

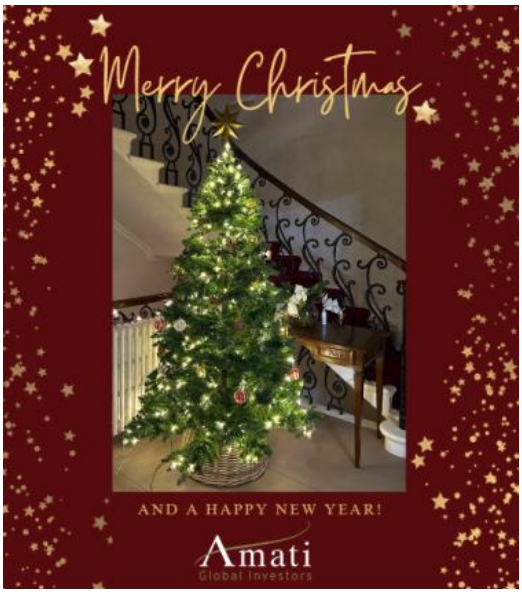
Further down the value chain, the challenges and the moats are different: RFID chips are encapsulated ("inlaid") into labels and tags, sometimes even integrated into garment threads, and need to be distributed to the point of use so that retailers or logistics operators always have the right inventory at hand. . Hardware that encodes and reads the labels (often in conjunction with printing or reading barcodes, QR codes and shipping addresses) presents another challenge.

Merry Christmas!

We would like to thank all of our investors for their continued support and wish everyone a Merry Christmas and Prosperous New Year from all the team at Amati!

We welcome regular feedback, thoughts or comments so please do get in touch via email at info@amatiglobal.com or call us on 0131 503 9115.

Our virtual Christmas card can be accessed here.



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Risk Warning

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These investment products place your capital at risk and you may not get back the full amount invested, even allowing for any tax breaks. The value of your investment may go down as well as up. Past performance is not a reliable indicator of future performance. Investors should be aware that any investment in equities is subject to risk, and that investment in smaller companies, in particular unquoted companies and those quoted on the Alternative Investment Market (AIM), carries an even higher risk than that of larger companies listed on the main market of the London Stock Exchange. This is due to the higher volatility and lack of liquidity often found in smaller company shares, as well as typically higher levels of business specific risks. Illiquidity means that buying and selling portfolio holdings may take some time, and in a worst case scenario portfolio companies could be delisted from AIM, making them very difficult to buy or sell, which in turn could affect the value of your investment. Current tax rules and the available tax reliefs offered on investments into AIM-quoted stocks may change at any time, and there is a considerable risk that if the legislation changed in respect of these tax reliefs, then those portfolio companies that no longer qualified for such reliefs would be subject to heavy selling pressure, potentially leading to significant investment losses.

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