

## AI Ascend: Navigating the Investment Landscape

Welcome to the latest edition of The ROE Reporter where we delve into the dynamic intersection of technology and investing. In this edition, we turn our gaze towards the transformative power of artificial intelligence (AI) and its profound implications for the investment landscape. With each passing day, AI innovations are reshaping industries, revolutionizing processes, and redefining the very essence of how we interact with technology. From predictive analytics to autonomous vehicles, AI is driving unprecedented efficiency, accuracy, and insight across diverse sectors. Through real-world examples, we'll explore how these advancements are not just shaping the future, but also presenting compelling opportunities for astute investors to navigate and capitalize upon. Join us as we unravel the complexities of AI-driven disruption and uncover the potential it holds for shaping the world of investing as we know it.

The above introduction might sound “off” in regards to our normal writing style and that is because it was written using ChatGPT with a one sentence prompt from us. We also fed the newsletter back into ChatGPT when it was done and asked for a title, which is where AI Ascend: Navigating the Investment Landscape was created. Playing around with AI tools like ChatGPT or Adobe Firefly will really open your eyes to the power of AI, which is the main focus of this edition of the newsletter. We'll provide a primer on AI and focus on areas where we think real opportunities exist today, plus relevant updates for a few of our current investments.

The rebound in small-cap stocks started in late 2023 and continues to roll in 2024. We have spent a lot of time discussing the reasons for the opportunity and why this should be the start of the next 5-7 year cycle – low valuations, peaking inflation = peaking interest rates, and a historical amount of cash on the sidelines. (see our January newsletter [here](#)). We believe the next few years will be very strong for this segment of the market. Overlaying some of the innovations we're seeing like AI, but also security and cybersecurity, healthcare tech, and grid tech, and future returns look very promising.

## **Recent Headlines**

Below is just a quick sample of the headlines within the last couple weeks, provided to show the breadth & sentiment but also the complexity & unknown.

[Artificial Intelligence's 'Insatiable' Energy Needs Not Sustainable, Arm CEO Says](#)

[Why the AI Industry's Thirst for New Data Centers Can't Be Satisfied](#)

[Jamie Dimon compared AI to electricity and computers in annual letter](#)

[Anthropic says its AI models are as persuasive as humans](#)

[Elon Musk and Jamie Dimon's AI Predictions and What They Mean for the Future of Humanity](#)

[Amazon CEO Says Generative AI Could Be Largest Technological Transformation Since the Internet](#)

[Booming AI demand threatens global electricity supply](#)

[BlackRock's CEO said AI will boost productivity and worker pay](#)

[AI demand threatens global electricity supply](#)

[Microsoft just introduced VASA-1. - It's a new AI model that can turn 1 photo and 1 piece of audio into a fully lifelike human deepfake.](#)

[AI is expected to improve employee productivity by 40%](#)

[Netflix's recommendations technology is worth \\$1 billion in revenue annually](#)

[AI algorithms increase leads by as much as 50%](#)

[ML allows Oxford University's AI system to read lips at a 93% accuracy level](#)

[OpenAI and Meta ready new AI models capable of 'reasoning'](#)

## **What is Artificial Intelligence (AI)**

We'll do our best to give a succinct overview of "AI", but be aware there is a lot more nuance to this term we'll get into today.

What we currently see in the world is mostly machine learning (ML) which is not quite the same thing as artificial intelligence. AI is being used as an overarching term with machine learning being under that AI umbrella. Machine learning can be thought of as advanced pattern recognition, or even just high-powered mathematics. A user feeds in data to train the "machine" (algorithm) which teaches it to perform a specific task by identifying patterns in data. In other words, using past and present data to decide on a course of action most

likely to achieve a desired outcome. The more data, the more time in training, and the more compute power, leads to more accurate and useful outputs. Use case examples include predicting the weather, reading lips, analyzing x-rays or MRIs, etc. All of these can now be done faster and more accurately than humans. Examples of popular tools would be ChatGPT for generative AI, Siri & Alexa for virtual assistants, and IBM’s Watson for business data analysis & insights.

Currently, the world, and especially in the world of investing, Machine Learning is construed as AI, but technically it isn’t artificial intelligence. For the sake of simplicity, AI is used as a catch-all term. Actual artificial intelligence uses logic to reason, learn, and self-correct. Some refer to this as Strong AI where the



Source: IBM Global AI Adoption Index 2022, IDC Worldwide Artificial Intelligence Spending Guide

machine is self aware and has its own emotions and beliefs<sup>1</sup>. This is currently “Hollywood AI” and what we see in the movies. True AI is currently hypothetical but certain experts proclaim it’s near while others predict it will take decades or centuries. For purposes of discussion today we’ll refer to AI in its general context similar to the very broad terms of “industrial revolution” or “the internet”.

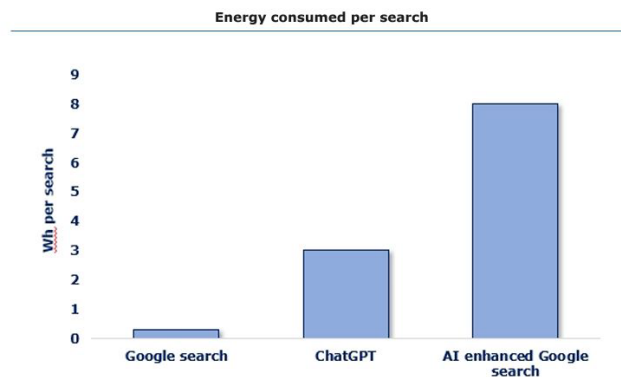
### **Early Impact**

We’re still in the early days of AI but the main implication is increased productivity. Being able to do more with less. A few of the headlines above reference this, with some analysis saying industries on average will be 40% more productive in relatively short order.

This may be hard to fathom but there are already real-world examples with astronomical outcomes. University of Cambridge researchers developed an AI to find new treatments for Parkinson's. It accelerates the initial screening process 10x, reduces costs 1000x, and already led to the discovery of 5 new compounds. Another would be implementing AI into robotics to perform routine and repetitive tasks – take a look at this Janitor robot [here](#), or more impressively this 3 min video of the newly launched Astribot [here](#). Just remember, this is currently the worst this technology will be and will only get more advanced from here.

We had an interesting internal discussion on how to compare what this might look like in the future using an historical example. What we landed on was what farming looked like in 1890 versus what it is today. As technology improved so did productivity. In the late 1800's it took 83 labour hours and 2.5 acres of land to produce 100 bushels of wheat<sup>2</sup>. With new technologies, it now takes ~2 hours and 0.6 acres of land to produce 100 bushels of wheat<sup>2</sup>. A fraction of the time and a fraction of the inputs. What was even more impactful was the second order effects of this productivity. In the 1800's over HALF of the ENTIRE labour force were farmers. Today farmers make up 1.2% of the labour force<sup>2</sup>. Farming technology freed up time and energy, which led to new industries and further innovation.

Much like farming, for AI there are a multitude of second order implications. Performing computing at this level requires a lot of electricity. Where is the power going to come from? Is the power grid ready and able to transmit all this power? (it is not). Who and how will we be protected from those who will use this technology against us? (cybersecurity, physical security).



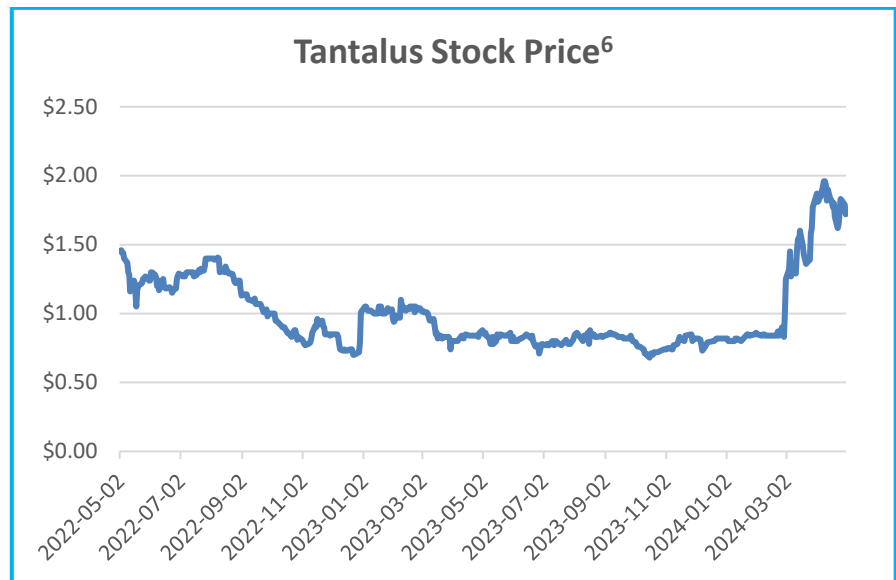
Source: Canaccord Genuity, Joule Journal *Figure 2 - Energy Consumption*

There will be innovation to help solve some of these issues like NVIDIA's recent chip announcement that requires 25x less power<sup>3</sup> or scientists in the UK who developed a new optical processing device that opened up new wavelength bands which set a new record at 301 terabits per second which is 25,000x faster than the world's average internet speed and 2,000x faster than current 1Gb speeds being offered through fiber<sup>4,5</sup>. There will continue to be innovations like these but there will also have to be A LOT of investment into the infrastructure. Significantly more data centers, more chips, more energy, more hardware, more software, and more people to construct and install and monitor all of this.

## Investments

We've gotten this far into the newsletter and one might now be expecting examples of AI companies we're investing in. This is where we would like to temper expectations. Just like the internet bubble, there are A LOT of pretenders using AI as a catchphrase which ranges from deceptive to outright fraudulent. Just this month we've seen multiple "AI" pitches where we were left thinking "where's the beef?" There are the obvious real choices like NVIDIA for the chips, Alphabet for search, and Adobe for generative content. That being said, these stocks aren't cheap and their past performance does not guarantee their future. Where we have found true progress and real opportunity is in companies using AI as a tool to improve efficiencies, which is showing up in improved profit margins and accelerated growth (indirect monetization of AI versus direct monetization of AI charging explicitly for AI products/features). From an investment perspective, we would suggest thinking of AI as a tool to utilize versus an outright business model.

- **Tantalus (GRID)**

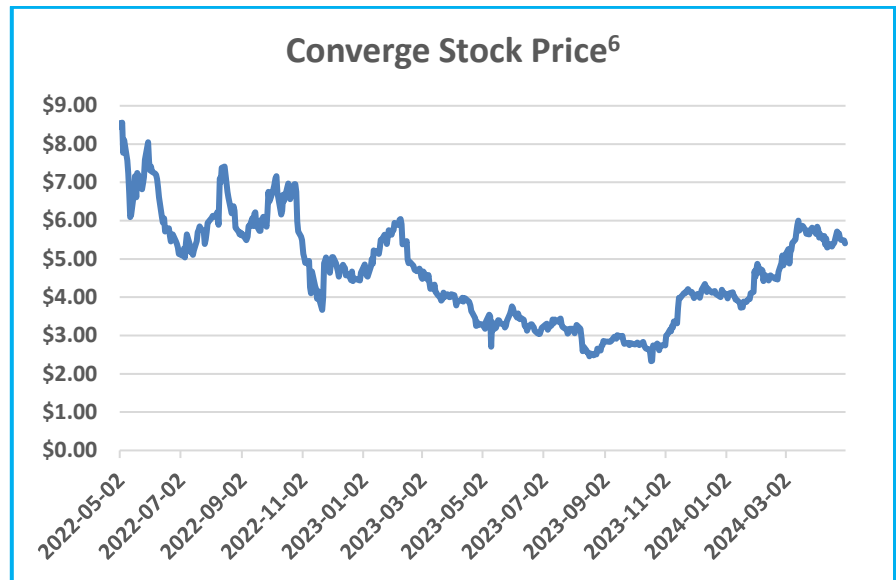


- Tantalus is an interesting company that is potentially approaching a breakout moment. They have been around for a long time, supplying hardware to utilities and are consistently profitable. That is until a couple years ago when they invested in developing a new piece of technology. The power grid in North America is extremely outdated and nowhere near ready for the upcoming demands of AI. Their TRUSense Gateway is a piece of hardware and software that enables communication and data analysis from the substation, to the home meter, to the smart home appliances. This behind the meter control system will allow utilities to be able to monitor power precisely,

protect transformers, and take smart home appliances to the next level.

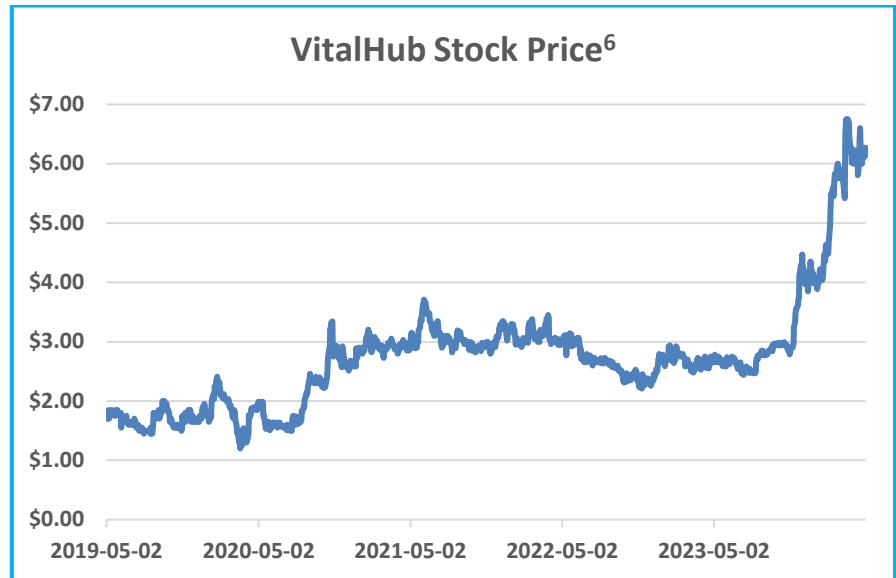
- Just last week they received certification that now allows them sell to utilities. Eight of their existing utility customers partnered with them in helping develop this technology and it appears like they are now in the initial steps in rolling out this product. If the rollout goes well, just these eight customers can grow GRID's revenue more than 3x.

- **Converge (CTS)**



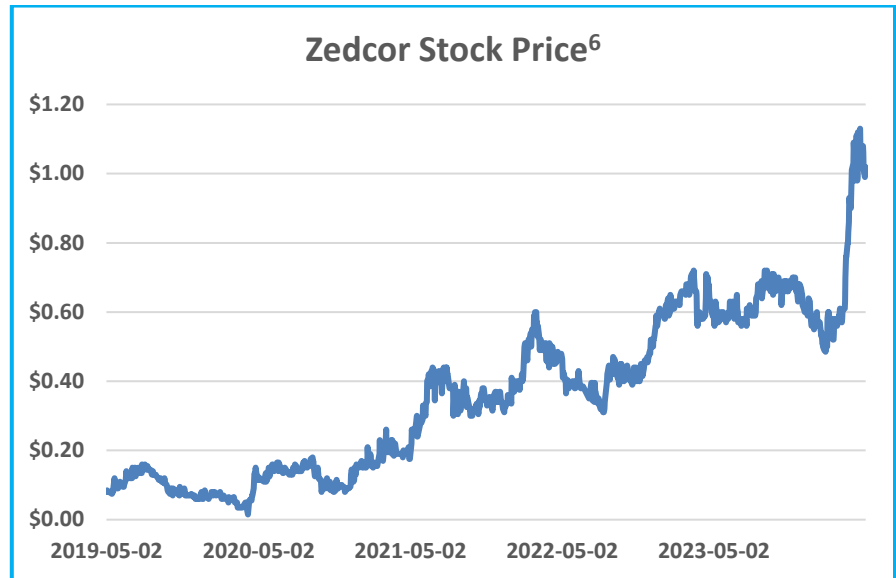
- Converge sells equipment to you like NVIDIA chips, offers services like IBM Watson, provides the necessary services to get you up and running, and maintains this infrastructure.
- They are executing on the massive amount of capital being spent on technology upgrades, AI being part of that. For these businesses that want to implement new technologies, they need to buy from a provider plus then employ a service provider to come in and install, implement, and bring to fruition. Converge offers both sides of this equation and as their service business expands so do their margins.
- The stock is still trading extremely cheap, with very strong organic growth and impressive free cashflow.

- **VitalHub (VHI)**



- We have owned and written about VHI for years. They continue to execute as planned and recently completed an equity raise. This company is in a similar situation to where Constellation Software was years ago. Investors and analysts wouldn't give the company credit for future acquisitions even though the business had done many very successful acquisitions, has a lot of capital on the balance sheet specifically for acquisitions, and says they are going to do a handful of acquisitions this year.
- Forecasting what we think they will deploy this year, plus the pace of their margin improvement, it appears like they will have double the earnings growth than most expect<sup>7</sup>. We think this stock could double again in very short order.

- **Zedcor (ZDC)**



- Zedcor is a security business based in Calgary that was born out of an oilfield services company. Their initial clients were pipelines who wanted to be able to monitor construction plus keep an eye on expensive equipment at job sites. These locations can be extremely off-grid and face all types of weather. Zedcor solved the problem by designing and building free standing reliable security towers that can be towed to location and powered by generator, solar, or electrical plug-in. From the early days of serving a few pipeline clients, the business has started to expand geographically as well as diversifying industries. This type of service is designed for clients like construction companies. They need the protection but the location of their assets and activity shifts as jobs are completed. Now having years of data, Zedcor’s service has shown to have an extremely high ROI for clients since each theft or vandalism incident can cost the client thousands in equipment costs, damages, and lost productivity.

MobileyeZ Fleet Geographic Footprint

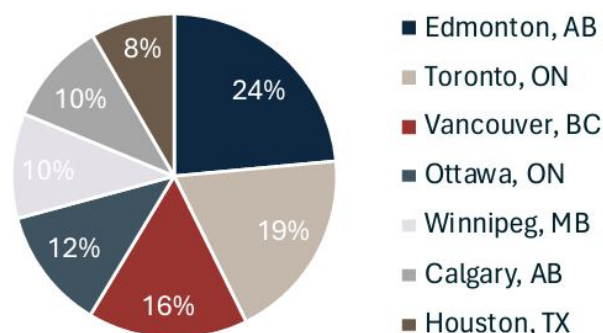


Figure 3 - MobileyeZ Fleet



Q4 2023 Revenue Breakdown By Industry

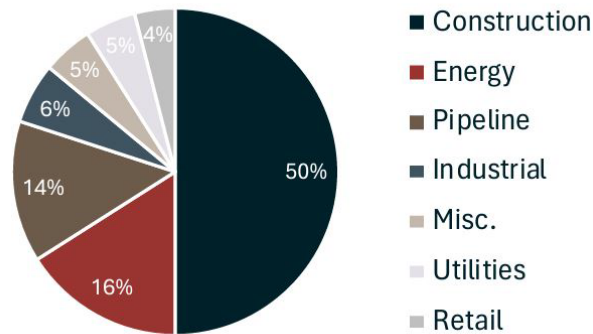


Figure 4 - Industry Revenue Breakdown

- You can checkout their latest investor presentation [here](#).
- We recently visited their head office in Calgary, which was invaluable because we got to see their technology being used in real time. As it relates to AI, their cameras allow them to use a type of AI called computer vision. This is where a machine can identify and classify objects. For example, the tech can tell the difference between a vehicle, human, animal, or movement that's due to weather like wind or rain. They are able to set alarm parameters to specific client needs. By overlaying "red zones" on the video feed, they can set alarms for specific locations, times, specific types of movements, and also set the alarm preferences, alert guidelines, and protocols. Some clients want their company manager to be notified, some want the authorities to be called, some want the towers alarm system to go off.
- Using 4K cameras, they can cover significant distances and pick up movement using both video and radar.



Figure 5 - Zedcor Radar Example

Radar with location and speed of 3 objects within the 70m red zone.



Figure 6 - Zedcor Video Monitoring Example

*Red outline is overlaid on video to set alarm zone. Video picks up and tags two people who entered the zone and alerts Zedcor.*

- We think the stock is still underfollowed and cheap because there is a perception that Zedcor is just an equipment company. Zedcor is actually lending the equipment to the client who in turn is paying Zedcor a monthly monitoring service fee. Some competitors simply sell towers, others outsource monitoring offshore, but Zedcor offers the highest-level service. That is why they are winning business from the likes of Amazon, DH Horton, and Best Buy. Their backend technology allows them to address hundreds of thousands of alarms every day. This is a task that wouldn't be possible without first level automation categorizing and accurately flagging each incident. This video surveillance as a service business strategy is much more building and selling towers. Zedcor keeps the towers as high ROI assets that provide meaningful multiple year recurring revenue.
- The ROI per tower for Zedcor is well over 20% and margins are set to significantly improve as their historical utilization rate has improved in 2024 from ~85% to near 100%. This improves margins & cashflow, plus corporate fixed costs have reached a level to support significant growth without needing much additional infrastructure.
- In the Toronto area, car thefts are now in the news every single day. It has actually become quite the issue. A lot of these cars are being

stolen from large parking lots. Prime targets being distribution centers, where employees work shifts and parked cars are vulnerable for the many hours between shift changes. Zedcor towers have proven to be effective, as they can target activity during shifts when there shouldn't be movement plus the potential to add license plate readers. If the tower itself doesn't stop the theft, alerting the authorities in real-time of the make and model has already led to arrests and is much more effective than a victim discovering the theft hours later. We foresee significant growth in this type of scenario for Zedcor.

- If they hit their projections, revenue growth will continue in the ~70% range and earnings will grow +100%<sup>7</sup>.
- In summary, Zedcor is a high growth, profitable and cheap stock with a long runway to re-invest at high rates of return.

### **Final Thoughts**

Donville Kent returned to BNN Market Call on March 12<sup>th</sup>, and you can watch the full replay [here](#). We have also made it easier to subscribe to the newsletter, which you can do [here](#).

We thought an AI primer would be helpful for readers from an informational perspective but also highlight a buyer beware warning. It is an exciting time and small caps have started to rebound and we believe there is still a lot of room to run. VHI, ZDC, CTS & GRID being prime examples.

As always, free feel to reach out with comments or questions.

Sincerely,

J.P. Donville & Jesse Gamble

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All estimates, projections, and calculations have been generated by DKAM. This does not constitute advice for personal investments but rather a breakdown of how Donville Kent approaches stock analysis.

- 1 - <https://www.ibm.com/blog/understanding-the-different-types-of-artificial-intelligence/>
- 2 - <https://agclassroom.org/matrix/lesson/656/>
- 3 - <https://venturebeat.com/ai/microsoft-and-nvidia-announce-major-new-integrations-breakthroughs-and-more-at-gtc/>
- 4 - <https://www.independent.co.uk/tech/internet-speed-world-record-b2519333.html>
- 5 - <https://tachus.com/internet-speeds-usa-vs-the-rest-of-the-world/#:~:text=Global%20median%20internet%20speeds%20have,increase%20in%20one%20year%20alone>
- 6 - Prices per Bloomberg
- 7 - Per DKAM internal estimates

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