

## Evolve Innovation Index Fund

EDGE provides investors with access to global companies that are involved in innovative or disruptive trends across a broad range of industries.

TSX  
EDGE

ETF TICKERS: EDGE (HEDGED); EDGE.U (USD)

MUTUAL FUND FUNDSERV CODE: EVF160 (CLASS F); EVF161 (CLASS A)

**Investment Thesis:** Innovation is a long-term, key driver of global economic growth. Access 8 themes that are reshaping our world. Data and AI are at the center of technological innovation.

### 8 Themes

- 1. Automobile Innovation:** The car is becoming digital: Autonomous, Connected & Electric
- 2. Cybersecurity:** Non-discretionary need to protect our data infrastructure
- 3. Cloud Computing:** Store and access data through the internet
- 4. E-Gaming:** Largest and fastest-growing entertainment sector
- 5. 5G:** Increasing wireless delivery speeds and efficiencies to connect the world
- 6. Robotics and Automation:** The rise of robots will boost productivity and economic growth
- 7. Fintech:** Transforming how financial services are delivered and consumed
- 8. Genomics:** Better drugs, developed in a fraction of the time at lower costs

## GENERAL INDUSTRY UPDATE

### Automobile Innovation



Source: Nio.com/et7

NIO recently announced that it will be working with Tencent, a gaming, social media, and cloud computing giant in China, on autonomous driving and high-definition mapping. This move comes as XPeng and Chinese e-commerce giant Alibaba opened a computing center for training software for driverless cars.<sup>1</sup>

General Motors Co., on the other hand, says their electric-vehicle program will be profitable by 2025, and forecasts that the annual revenue growth over the next three years will be around 12%, with electric vehicle sales being the primary driver of the growth.

Furthermore, the company expects their electric vehicles to be eligible for consumer tax credits of up to \$3,750 per vehicle next year, and the company will start sourcing production of battery materials to qualify for the full \$7,500 tax credits.<sup>2</sup>

### Cybersecurity



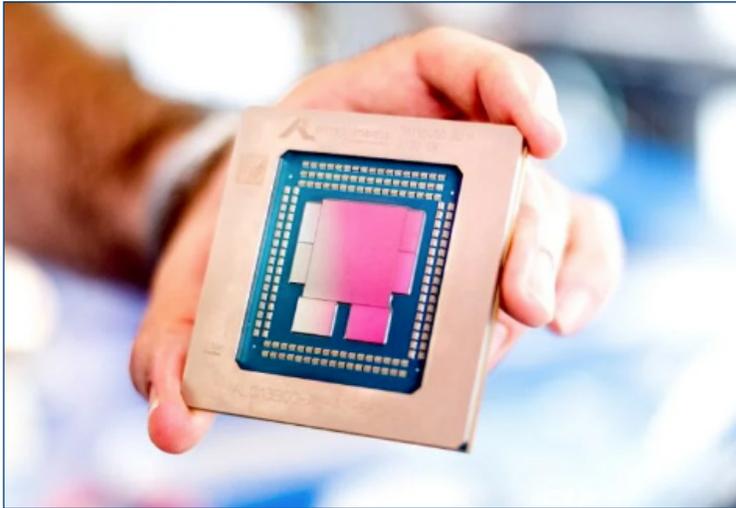
Source: Shutterstock.com

In the first half of 2022, there were 2.8 billion malware attacks globally and 236.1 million ransomware attacks. By the end of the year, it is anticipated that six billion phishing attacks will have been launched.

As cyberattacks have become rampant, the Institute of Electrical and Electronics Engineers (IEEE) recently conducted a survey of 350 chief technology officers, chief information officers, and IT directors about the most important technologies in 2023. The survey revealed that 51% of executives see cloud vulnerabilities as one of their top concerns. 43% of executives mentioned data center vulnerability as their top concern.

Other areas of concern for cybersecurity executives and professionals included ransomware attacks, coordinated attacks on an organization's network, and the lack of investment in security solutions.<sup>3</sup>

## Cloud Computing



Source: Business Wire/AWS

Amazon.com Inc.'s cloud-computing unit, Amazon Web Services (AWS), is introducing a new version of its Graviton chips, designed to power high-end computing and help in tasks such as weather forecasting and gene sequencing.

This opens doors for AWS to rent computing power to its customers that is more cost effective than renting time on processors built by companies such as Intel Corp., Nvidia Corp., and Advanced Micro Devices Inc. Furthermore, by introducing the new chip, Amazon can compete directly with the above-mentioned companies, who are largest suppliers of chips.<sup>4</sup>

In addition, Amazon's AWS recently announced an "AWS Digital Sovereignty Pledge".

With this pledge, the cloud computing giant made a promise that customers will have full control over the location of their data within AWS, have control over how its accessed, and have the ability to encrypt it everywhere.

As part of the pledge, AWS has also vowed to make its cloud stronger against any network disruption and natural disasters.<sup>5</sup>

## E-Gaming



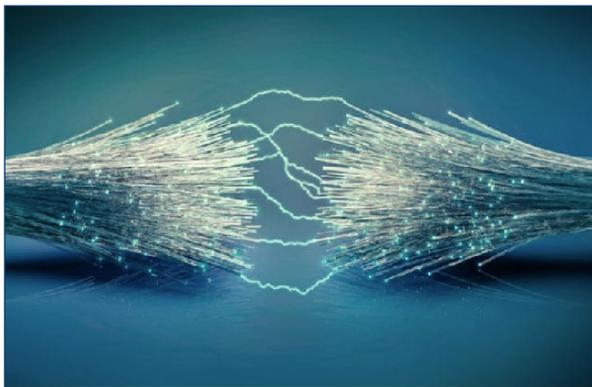
Source: Adobestock

The gaming industry is growing at a robust pace. In fact, the pandemic has really accelerated growth in the video games industry, and the ripple effects are still being felt. In 2022, the video games industry is expected to be worth \$170.0 billion—that's five times as much as the global box office.<sup>6</sup>

Electronic Arts Inc. said recently that it has ironed out a deal to develop three games inspired by characters in the Marvel Cinematic Universe (MCU). This deal gives Electronics Arts access to one of the biggest and well-known entertainment franchises in the world.<sup>7</sup>



Source: Rawpixel.com



Source: Thomas-Soellner | istockphoto.com

## 5G

T-Mobile US Inc., held by the fund and one of the largest 5G wireless carriers in the U.S., is working with Citigroup Inc. to create a fiber-optic network through a joint venture or a commercial partnership that could be worth as much as \$4.0 billion.

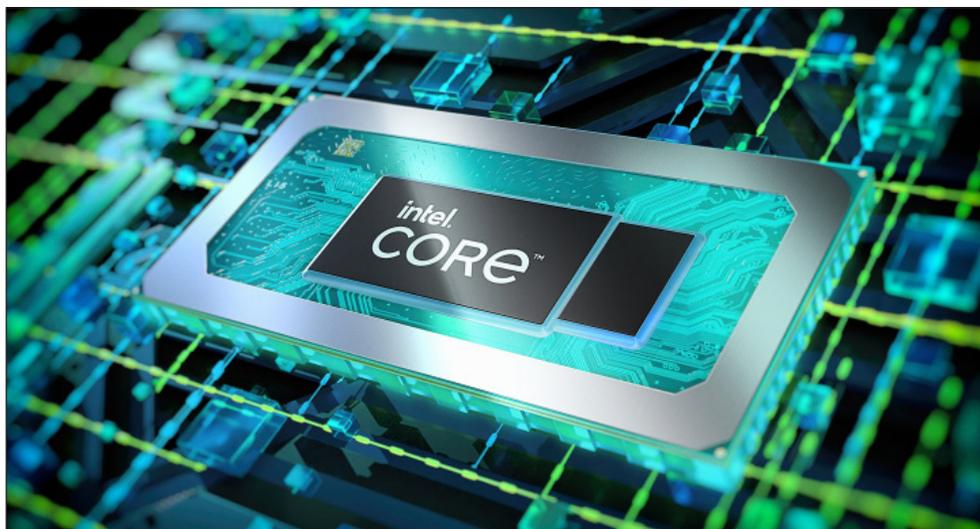
The company is aiming to target the home-broadband market through fibre-optic networks that generally require immense investment. Although no deal has been inked yet, it would be a big step for the company. T-Mobile doesn't currently own any fibre networks like its peers and leases the capacity for its mobile-phone network.

T-Mobile could also get help from a \$100-billion fund created by the U.S. government to improve broadband.<sup>8</sup>

## Robotics & Automation

Intel Corp, held by the fund and the world's largest semiconductor chip manufacturer, recently revealed that it will be splitting its graphic chips unit into two. This decision will involve combining the consumer graphics unit with Intel's client computing group (a unit that makes chips for personal computers) and merging the accelerated computing teams with its data center and artificial intelligence (AI) unit.

Intel Corp believes that this division will better position the company to compete with Nvidia Corp and Advanced Micro Devices as it doubles down on accelerated computing. Currently, this growing segment is dominated by Nvidia.<sup>9</sup>



Source: Intelcorp



Source: Leedaily

## Fintech

J.P. Morgan Payments and Mastercard have launched Pay-by-Bank in the U.S. and are expecting it to expand in 2023.

At its core, Pay-by-Bank is an Automated Clearing House (ACH) payment that allows consumers to share their financial data with trusted parties to pay bills directly from their bank account with superior security. With this, consumers won't have to worry about knowing factors like routing and account numbers each time they attempt to pay bills. Furthermore, for billers and merchants, it makes the process of onboarding customers easy, and helps them reduce their costs and risks when it comes to bank account information.

Pay-by-Bank could be beneficial for those who engage in making/receiving recurring payments such as utilities, tuition, insurance, healthcare, rent, and others.

Billers and merchants that have customers paying with ACH can integrate the J.P. Morgan Payments Pay-by-Bank solution on their existing payments page. When checking out, consumers select the "Pay-by-Bank" option and, after verifying themselves, they could complete the payment.<sup>10</sup>

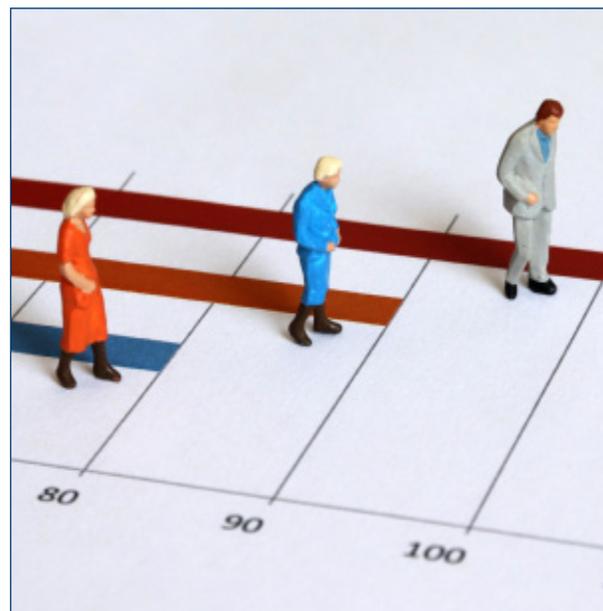
## Genomics

Looking ahead to the next 100 years, research published in *Nature Communications* suggests that under the right circumstances, humans could live anywhere from 120 to 150 years of age in the near future.<sup>11</sup>

A big part of increasing the average life expectancy at birth is having access to innovative medications and healthcare. Pharmaceutical companies that are working on aging research, drug discovery, and biomarker development include Novartis, Life Biosciences, and startups such as BioAge Labs and Cambrian Biopharma.

Bristol Myers Squibb, a multinational pharmaceutical company held by the fund, recently announced the results of new research from its multiple myeloma portfolio. The company's ongoing research and promising results demonstrate the advancements they have made in combatting the disease and further show the company's commitment to providing patients with the ability to receive tailored treatment options that generate the best possible outcomes.

Currently, multiple myeloma is an extremely challenging disease to manage and it affects patients of varying demographics and lifestyles. While scientific advances have helped to improve patient survival rates, the disease nonetheless greatly impacts one's quality of life.<sup>12</sup>



Source: Shutterstock

## PORTFOLIO STRATEGY AND ACTIVITY

For the month, GDS Holdings Ltd. made the largest contribution to the Fund, followed by Arqit Quantum Inc. and Polestar Automotive. The largest detractors to performance for the month were Sentinelone Inc., followed by Edgio Inc. and Telos Corporation. On last rebalance, FANUC Corp., Argenx SE, Waters Corp, and Block Inc. were added to the fund.

### PERFORMANCE (%)

TOTAL RETURNS*	1 MTH	YTD	1 YR	2 YR	3 YR	4YR	SI**
EDGE (HEDGED)	3.08	-27.60	-28.33	-6.91	8.60	11.23	8.62
EDGE.U (USD)	4.64	-30.85	-31.20	-	-	-	-13.72

Source: Bloomberg, as at November 30, 2022.

\*\* Performance of EDGE since inception on April 30, 2018.

Performance of EDGE.U since inception on January 7, 2021.

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