Securing the Fourth Industrial Revolution
Cyber Security

2020

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Overview

The fourth industrial revolution is the current environment where disruptive technology trends such as the Internet of Things (IoT), Robotics, Artificial intelligence (AI), Future Cars/Autonomous Vehicles, Blockchain, Cloud Computing, Genomics and Social Media are changing the way we live and work.

Unlike previous industrial revolutions, these technologies are rapidly combining to create an accelerating, virtuous cycle of nearly unlimited disruption. While previous industrial revolutions were often localized, today's is interconnected and global and its impact is already visible in homes and businesses across the world.

This is a short guide to help investors understand the main sectors of the fourth industrial revolution and their features, applications, and growth potential:

- Robotics & Automation
- Future Transport
- Cloud Computing
- Cyber Security
- Genomics
- Social Media
- Blockchain
- Augmented & Virtual Reality

Cyber Security Theme

The cybercrime threat is often identified by CEOs as the leading risk factor facing enterprises today. As companies grow increasingly reliant on cloud-based software and as billions of new internet-connected devices are launched (Internet-of-Things), the scope for malicious cyber activity is increasing exponentially.

Cybercrime includes:

- **Hacking** - shutting down or misusing websites and computer networks,
- **Identity theft / phishing** - using fake email messages to get sensitive information from users
- **Malware / ransomware attacks** - inserting malicious code to damage a computer system, surveillance and eavesdropping or electronic money laundering.

While an estimated 75% of cyber-crime is carried out for financial gain, up to 25% is put down to state-sponsored espionage.¹

With military and police services introducing more robotic technologies, drones and autonomous vehicles; cyber security is transitioning from being a commercial to a national security concern for many governments.

The scale of the issue is already huge: data breaches are estimated to have compromised 4.1 Billion records in the first half of 2019² - up 11% year-on-year and cyber-crime is predicted to cost the global economy an astonishing $6 Trillion a year by 2021.

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² [https://www.varonis.com/blog/cybersecurity-statistics/](https://www.varonis.com/blog/cybersecurity-statistics/)
With the average data breach costing a company $3.9 million, mitigating the risk of cybercrime is a top priority for business leaders.

**Recent Examples:**

- In 2016, 3 billion Yahoo! accounts were hacked in one of the largest data breaches in history.
- In 2016, Uber reported that hackers stole the information of over 57 million drivers and riders.
- In 2017, 148 million consumers were affected by the Equifax breach.
- In 2018 Under Amor reported its fitness app was hacked, impacting 150 million users.
- In 2018 Marriott Hotels reported that up to 500 million guests had details compromised, including credit cards details and passport numbers.
- In 2020, the Australian Defence Force was itself forced offline for 10 days as it responded to data breach that exposed personal details of tens of thousands of its members.³
- It is estimated that in March 2020 alone, 832 million digital records were breached worldwide⁴.

**Growth of the Cyber Security Sector**

It has become imperative for organisations and individuals to protect themselves against the widespread economic, operational and reputational damages caused by cyber-attacks and investment in cyber security measures is becoming one of the largest spends in IT departments around the world.

In 2020 size of the cyber security market is estimated to be $173 Billion. While analyst estimates vary, there is broad consensus that the industry will continue to benefit from huge tailwinds, reaching anywhere between $250 Billion and $1 Trillion per year by 2025.⁵

![Global Cybersecurity Market Forecast (US$bn)](chart)

*For illustrative purposes only*

*Source: Statista 2020*

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⁵ [https://cybersecurityventures.com/cybersecurity-market-report/](https://cybersecurityventures.com/cybersecurity-market-report/)
As ransomware hits more companies, malware becomes refocussed on mobile and smartphones and billions of Internet-of-Things devices connect, the scope for the cyber security market to grow seems assured and 62% of companies plan to increase cyber security spend this year.  

**Investing in Cyber Security**

The increased threat of cybercrime and the growth of internet-connected devices AI has spurred investor interest in the Cyber Security theme. Investors who see long-term opportunity in this theme can consider an allocation to The HAN-GINS Tech Megatrend Equal Weight UCITS ETF (ITEK). ITEK includes Cyber Security as part of 8 transformational technology trends that are reshaping the world alongside Cloud Computing & Big Data, Robotics & AI, Future Cars, Genomics, Social Media, Blockchain, Augmented & Virtual Reality.

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Fund Details

When you trade ETFs, your capital is at risk

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- ITEK Factsheet
- ITEK Video
- ITEK Fund Page

About HANetf

HANetf is an independent ETF specialist working with third-party asset managers to bring differentiated, modern and innovative ETF exposures to European investors via unique white-label ETF/ETC platform.

Founded by two of Europe’s leading ETF entrepreneurs, Hector McNeil and Nik Bienkowski, HANetf provides a complete operational, regulatory, distribution and marketing solution for asset managers who want to successfully launch and manage UCITS ETFs.

HANetf’s full products list includes:

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