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SERVICES ALLIANCE



Harnessing the cybersecurity opportunity for growth

Cybersecurity innovation and the
financial services industry in Ontario

EXECUTIVE SUMMARY

October 2016

Deloitte.

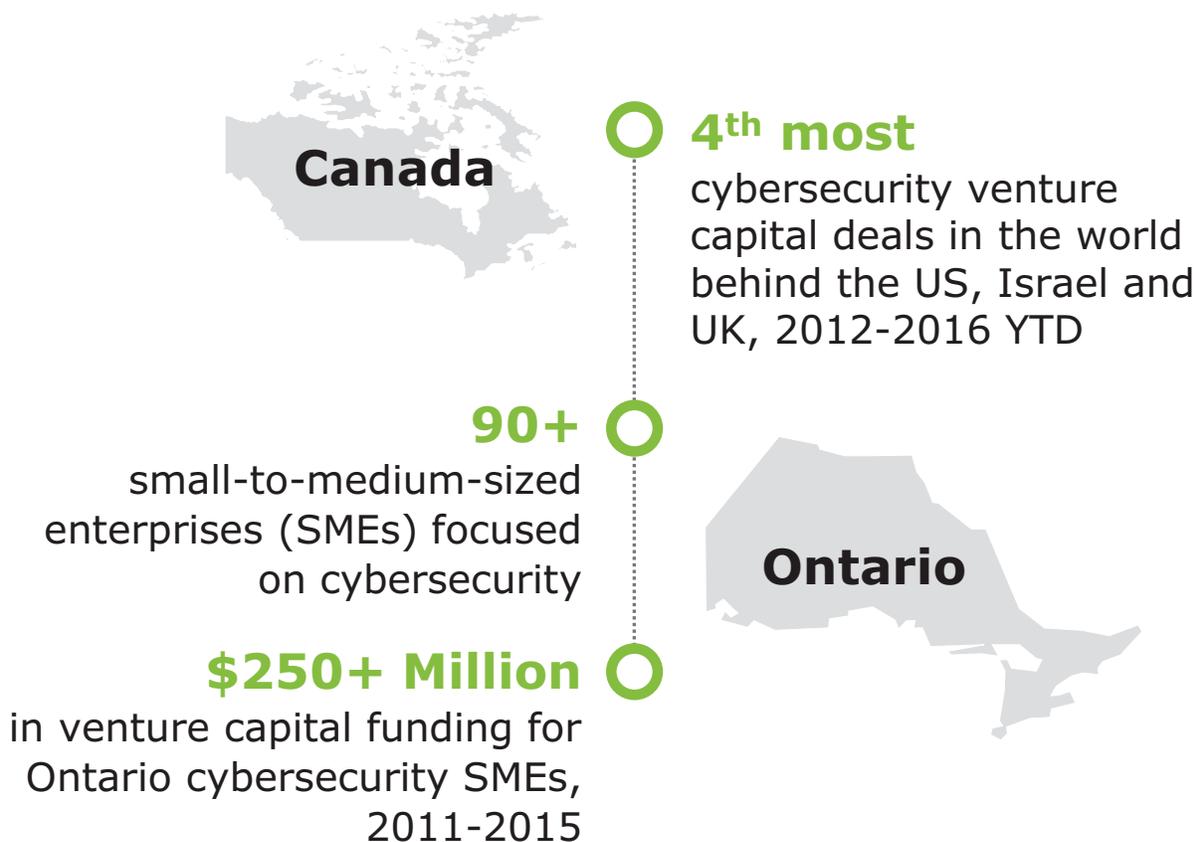
Deloitte has been retained to undertake this study on behalf of Ontario Centres of Excellence (OCE) and the Toronto Financial Services Alliance (TFSA). The purpose of the study was to understand how to harness cybersecurity threats and opportunities to position Ontario as a global cybersecurity innovation hub with a focus on the financial services industry.

Executive summary

Background

The World Economic Forum's Global Risk 2016 report cites cybersecurity risk as one of the top commercial risks along with geopolitics, the environment, and the economy. Following a string of high-profile cyberattacks, with significant value at risk, and increasingly digitized business models, the financial services industry has been particularly impacted by the imperatives of cybersecurity.

Emergent from this heightened risk landscape, however, is opportunity. Opportunity that is driving a new global competitive environment, threatening Ontario's leadership in cybersecurity innovation and financial services.



Recognizing this context, Ontario's vibrant startup community, and the importance of our financial services cluster in Ontario, the purpose of this study is to understand how to harness the cybersecurity opportunity to position Ontario as a global cybersecurity innovation hub with a focus on the financial services industry.

Executive summary

Key findings

We found that Ontario has all the ingredients to become a global hub for cybersecurity innovation but has not yet reached the scale and gravity necessary to compete at the highest levels. Our analysis identified a number of areas of both strength and friction within Ontario's cybersecurity innovation ecosystem on which to build and solve for.

1. The future of innovation in the financial services industry is intimately linked to cybersecurity creating opportunities for shared growth.
2. While Ontario has organically developed significant clusters of cybersecurity innovation, there is no single centre of gravity, coordination, or systemic catalyst to bring it all together.
3. There is a cybersecurity talent shortage globally and in Ontario.
4. There is limited collaboration on applying Ontario's R&D strengths in related fields to cybersecurity problems.
5. Ontario is well positioned to access some of the largest domestic and international cybersecurity markets and sources of capital, but a lack of visibility, a limited culture of 'buying Canadian,' and a relatively risk-averse domestic market has historically hindered this potential advantage for cybersecurity innovators in Ontario.
6. Cybersecurity is an area of strategic collaboration for financial services and other industries.
7. An historically sound regulatory environment has potentially led to a risk-averse approach to innovation for the financial services industry.

For the five key actions that can move Ontario's cybersecurity innovation ecosystem to the next level, read the full report at www.oce-ontario.org/cyber-report.

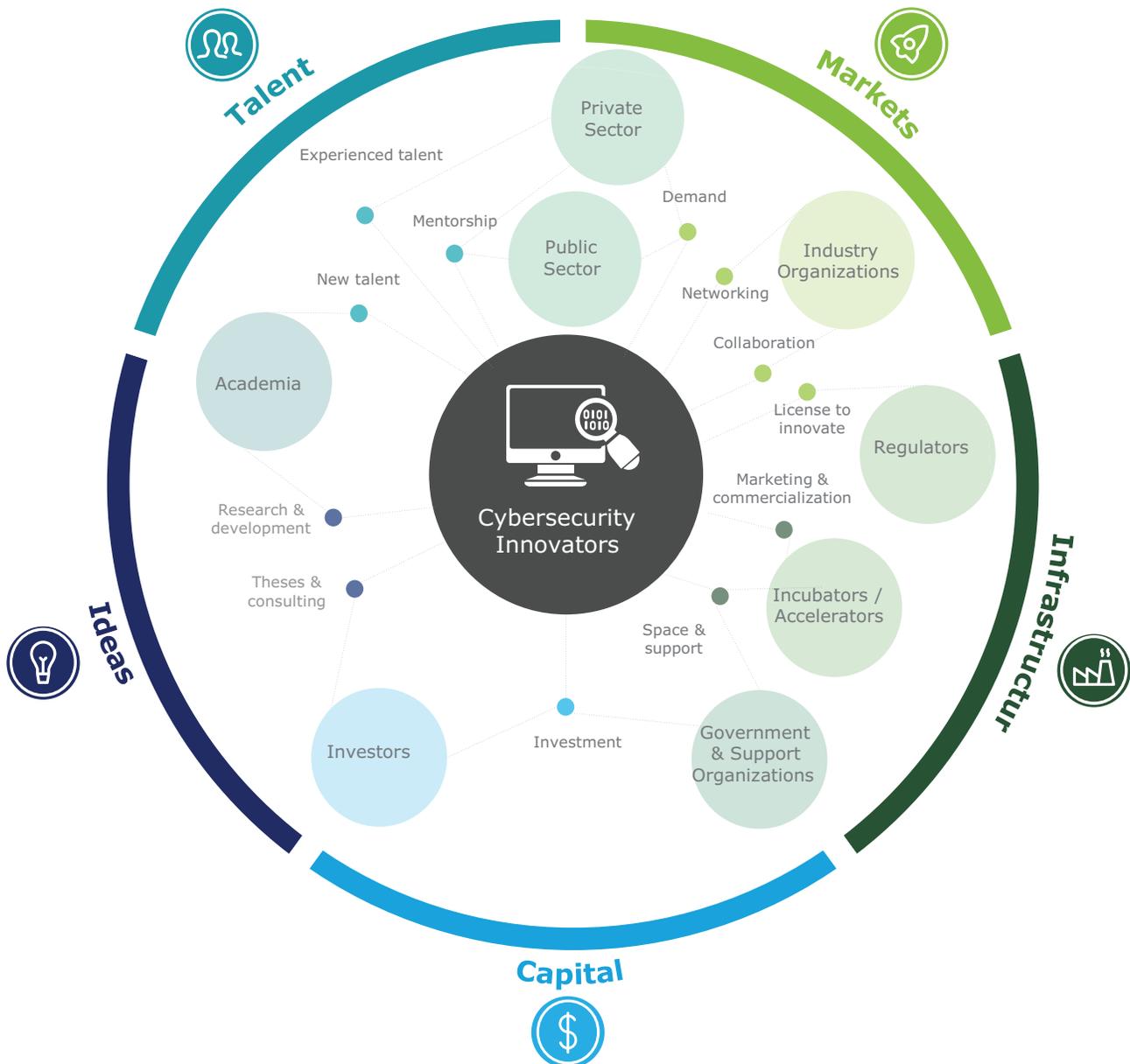
Call to action

Despite the requisite ingredients to compete globally and Ontario's historically strong performance in this sector, the province risks losing its competitive position by failing to match the concerted efforts of governments and industries around the world that are ramping up investment and coordination in fostering cybersecurity innovation. Focused and immediate intervention in both the public and private sectors is required to harness the cybersecurity opportunity and position Ontario as a global cybersecurity innovation hub.

Ontario must harness the cybersecurity opportunity for growth - the long-term security and prosperity of the financial services industry and Ontario's economy may depend on it.

Cybersecurity innovation ecosystem model

Our analysis employs a cybersecurity innovation ecosystem model comprised of five factors and nine players. It aims to model the economic dynamics of relationships between players whose goal is to propel innovation.



About OCE

Ontario Centres of Excellence (OCE) drives the commercialization of cutting-edge research across key market sectors to build the economy of tomorrow and secure Ontario's global competitiveness. In doing this, OCE fosters the training and development of the next generation of innovators and entrepreneurs and is a key partner with Ontario's industry, universities, colleges, research hospitals, investors and governments.

A champion of leading-edge technologies, best practices and research, OCE invests in sectors such as advanced health, information and communications technology, digital media, advanced materials and manufacturing, aerospace, transportation, energy, and the environment including water and mining. OCE is a key partner in delivering Ontario's Innovation Agenda as a member of the province's Ontario Network of Entrepreneurs (ONE). Funded by the Government of Ontario, the ONE is made up of regional and sector-focused organizations and helps Ontario-based entrepreneurs and industry rapidly grow their company and create jobs.

About TFSA

The Toronto Financial Services Alliance (TFSA) is a unique, public-private partnership dedicated to growing Toronto region's financial services cluster and building it as a "top ten" global financial services centre. Established in 2001, TFSA is a collaboration involving three levels of government, the financial services industry and academia.

Working collaboratively with industry and government, we build international awareness of the advantages offered by the Toronto region and we work with financial services companies from around the world that are exploring business opportunities in Toronto.

We lead an integrated strategy with three main objectives:

- To set, drive, and execute cross-sector priorities for the growth of jobs and investment in the Toronto region financial sector;
- To promote awareness of the advantages of Toronto region's financial services sector and its importance in order to grow our domestic and international reputation as a global financial services hub;
- To identify and pursue initiatives to sustain and enhance the competitiveness of Toronto region's financial sector as an attractive business environment and location for talent.

To leverage the financial industry's global reputation for stability, we have established the Global Risk Institute in Financial Services. To capitalize on Toronto region's talent advantages, we have established the Centre of Excellence in Financial Services Education.

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