

MaRS OVERVIEW

2017

The MaRS logo is a dark blue circle containing the text "MaRS" in white, sans-serif font. It is positioned in the bottom right corner of the slide, overlapping the glass facade of the building.

MaRS

MaRS OVERVIEW

THE MaRS MISSION & CENTRE

INNOVATION SUPPLY

MaRS Ventures

INNOVATION DEMAND

Opening Markets and Driving Adoption

TORONTO'S UNIQUE POSITION

Canada's Hub for Convergent Innovation





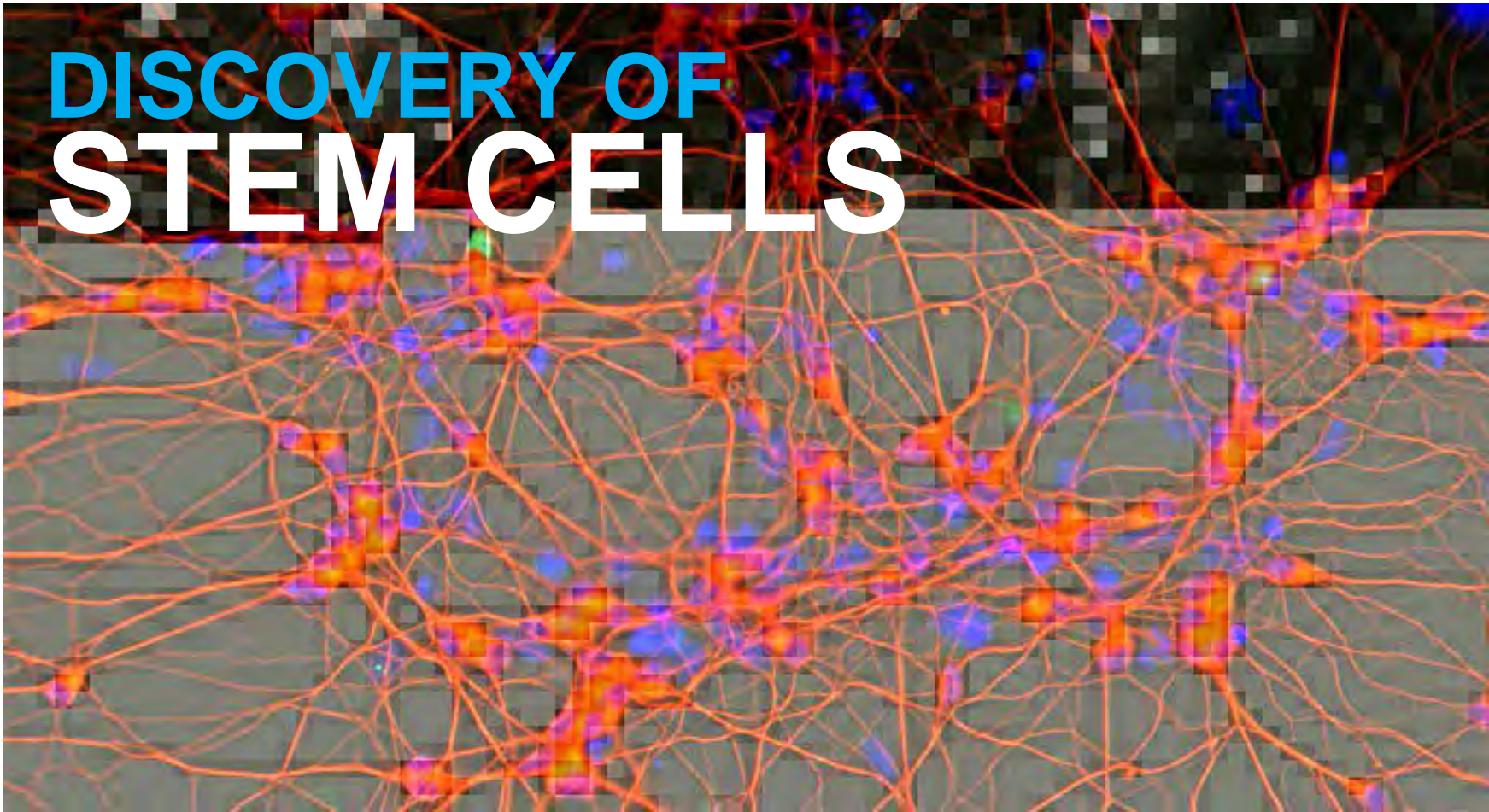
HISTORY OF DISCOVERY



DISCOVERY OF INSULIN



DISCOVERY OF STEM CELLS



#PLACE Matters



URBAN INNOVATION HUB

MaRS

1.5 million sq ft

Direct subway & streetcar
access

150+ Total Tenants

80+ Startup Tenants

Convening entrepreneurs
with financial, academic &
business communities

MORE THAN A BUILDING: AN INNOVATION HUB

	INNOVATION CENTRE	INCUBATOR	ACCELERATOR	INNOVATION HUB	INNOVATION DISTRICT
Where?	Building	Space		Place IP address Soft landings at other locations	Multiple buildings in a geographic area
Who?	Varied tenants	Startup ventures (general)	Startup ventures (selected cohort)	Startup and scaling ventures Incubators Corporate MNEs Investors Research labs and groups Convening of communities of interest	Universities Hospitals Research Institutes Student startups Incubators Corporate MNEs
What?	Limited programming	Venture services	Venture services Capital	Venture services Capital Talent Systems (incl. policy) Corporate connections Global networks	No centralized programming
Global examples	Cambridge Innovation Centre	JLABS	Y Combinator	MaRS Grand Central Tech (NYC) The Crick Institute (London, 2016) Nesta (London, 2016)	Biopolis* Mission Bay Kendall Square

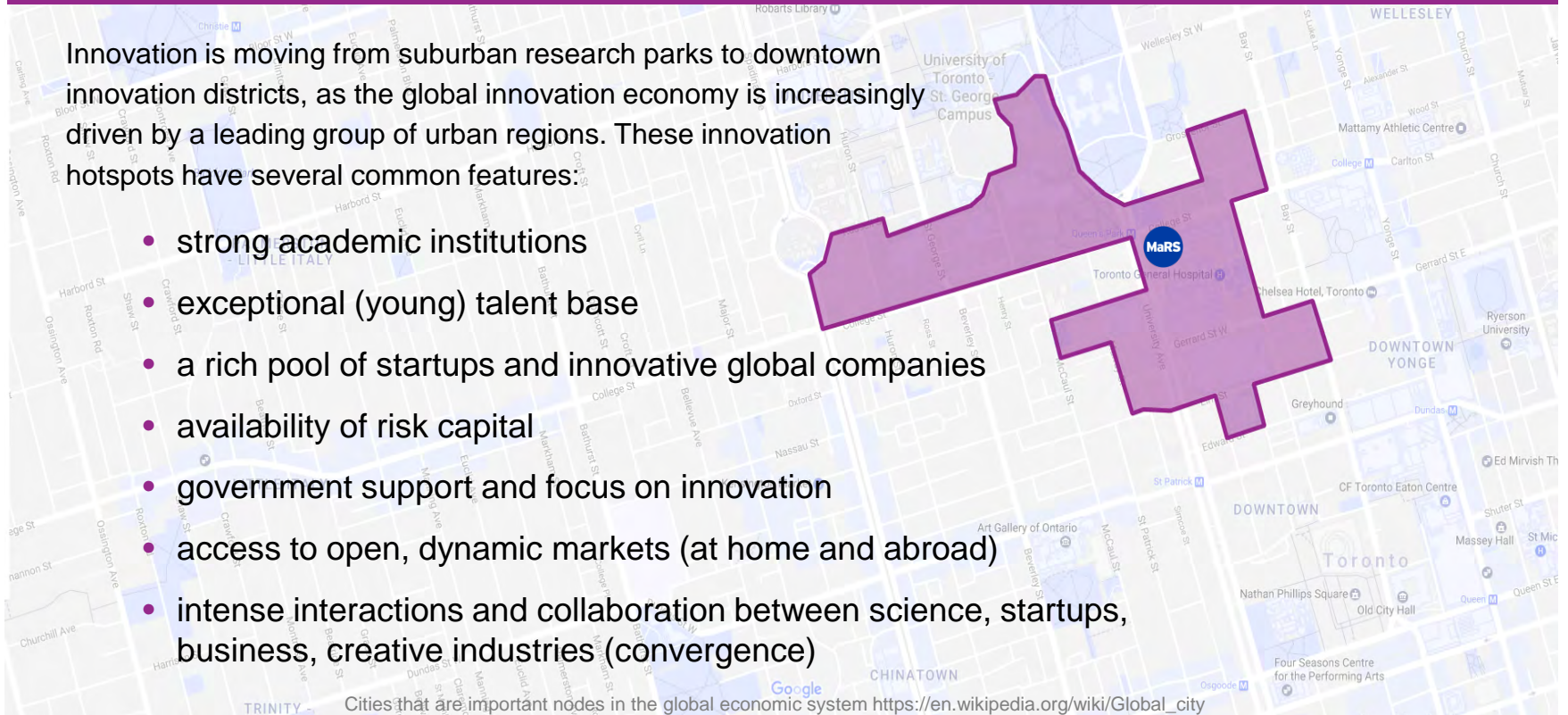
* Have announced intention to pursue a Hub model.

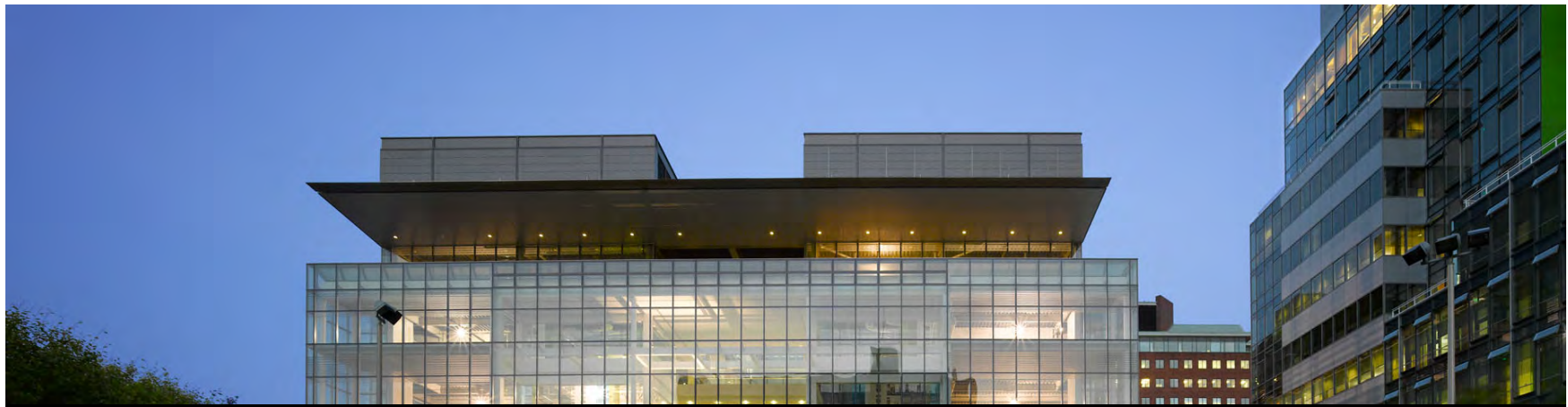
THE GLOBAL GEOGRAPHY OF INNOVATION IS MOVING

WHERE MaRS PLAYS: PLACE MATTERS IN THE NEW GEOGRAPHY OF INNOVATION

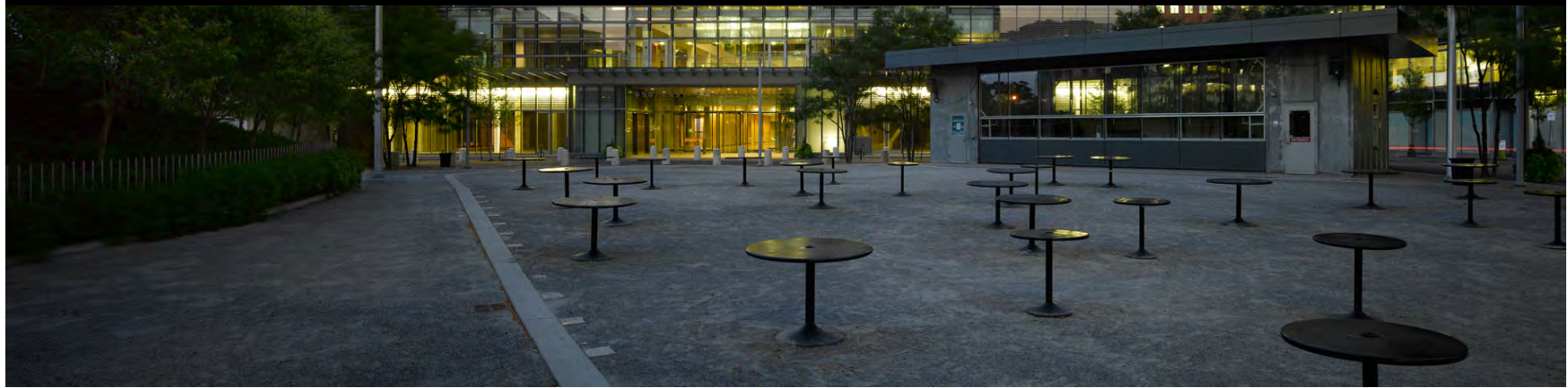
Innovation is moving from suburban research parks to downtown innovation districts, as the global innovation economy is increasingly driven by a leading group of urban regions. These innovation hotspots have several common features:

- strong academic institutions
- exceptional (young) talent base
- a rich pool of startups and innovative global companies
- availability of risk capital
- government support and focus on innovation
- access to open, dynamic markets (at home and abroad)
- intense interactions and collaboration between science, startups, business, creative industries (convergence)





Kendall Square, Boston





Mission Bay, San Francisco





Crick Institute, London





Biopolis, Singapore





Karolinska Institute, Stockholm





Zhongguancun, Beijing





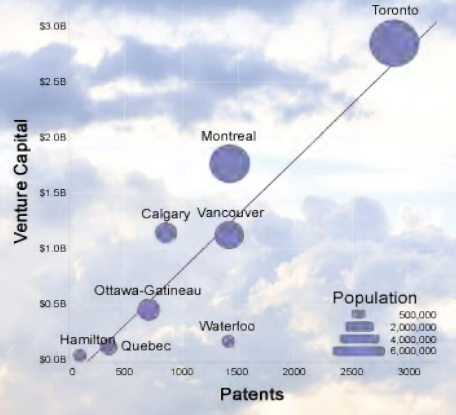
GRAND CENTRAL TECH

New York City



TORONTO: A HUB FOR CANADA'S CONVERGENT INNOVATION

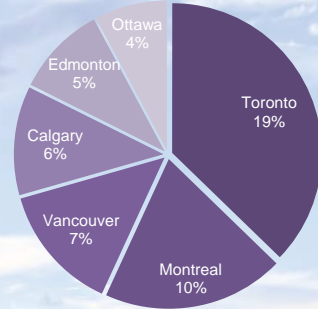
Strongest Patenting and VC Investment in Canada



Most Diversified Economy + Largest Industry Clusters



Greatest Concentration of Canadian GDP



2X the job growth rate
of Canada 2010-2015

400,000 technology employees

Sources: Stats Canada & Brookings Institute Global City GDP 2014; TechToronto / Statistics Canada; University of Toronto; OECD patent cooperation treat and Thomson Reuters



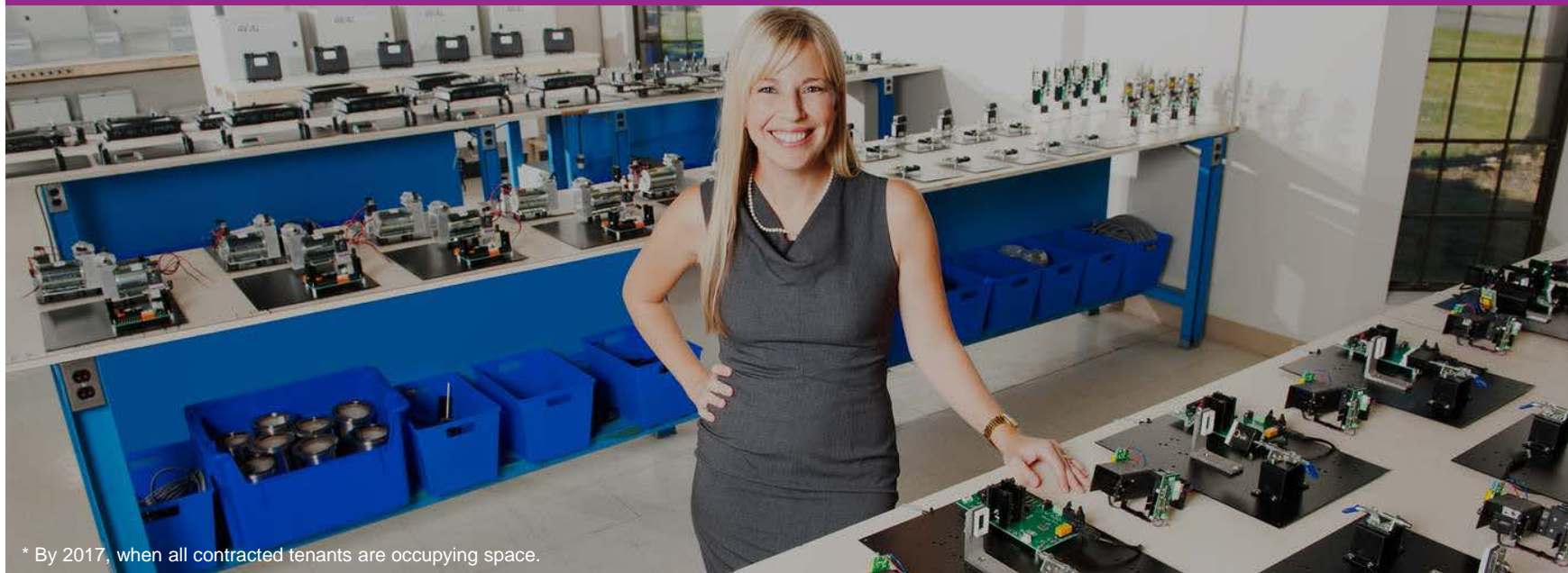
HOME TO: **STARTUPS, SCALEUPS, RESEARCH, INVESTORS, CORPORATE HQs**



SELECT MaRS CENTRE TENANTS BRINGING THE INNOVATION ECOSYSTEM TOGETHER

STARTUPS	CORPORATIONS, CAPITAL & SERVICE PROVIDERS	ECOSYSTEM PARTNERS (PUBLIC)

LIFE @ MaRS TODAY



* By 2017, when all contracted tenants are occupying space.

2,000+

Annual Events
and Meetings

150,000

Annual
Attendees

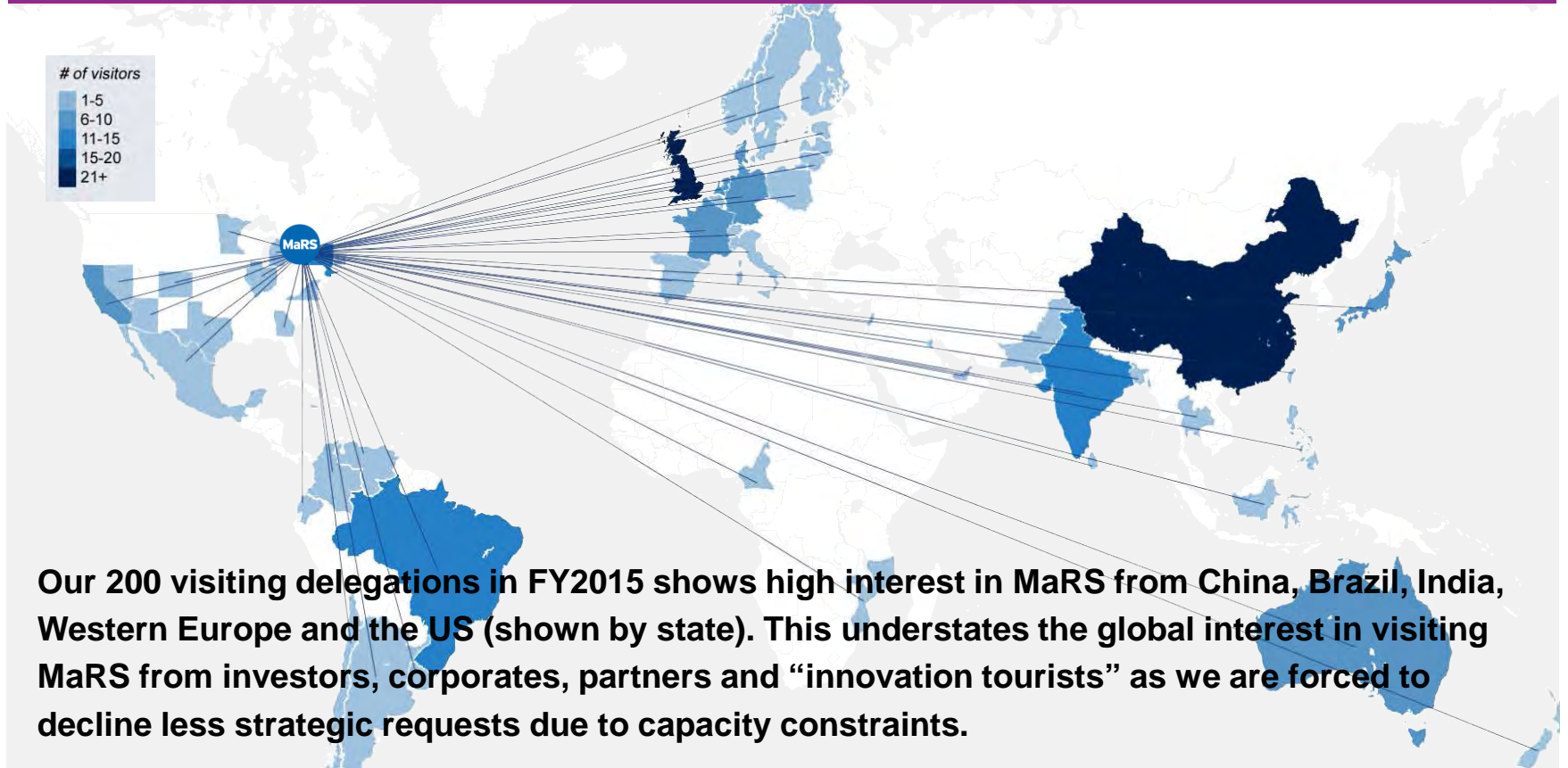
200

Annual International
Delegations

6,000

People
at Work

MaRS ATTRACTS HUNDREDS OF GLOBAL VISITORS A YEAR



Our 200 visiting delegations in FY2015 shows high interest in MaRS from China, Brazil, India, Western Europe and the US (shown by state). This understates the global interest in visiting MaRS from investors, corporates, partners and “innovation tourists” as we are forced to decline less strategic requests due to capacity constraints.

INVENTION

+

ADOPTION

=

INNOVATION



BRIDGING THE GAP BETWEEN INVENTION AND ADOPTION



Health



Energy & Environment



Finance & Commerce

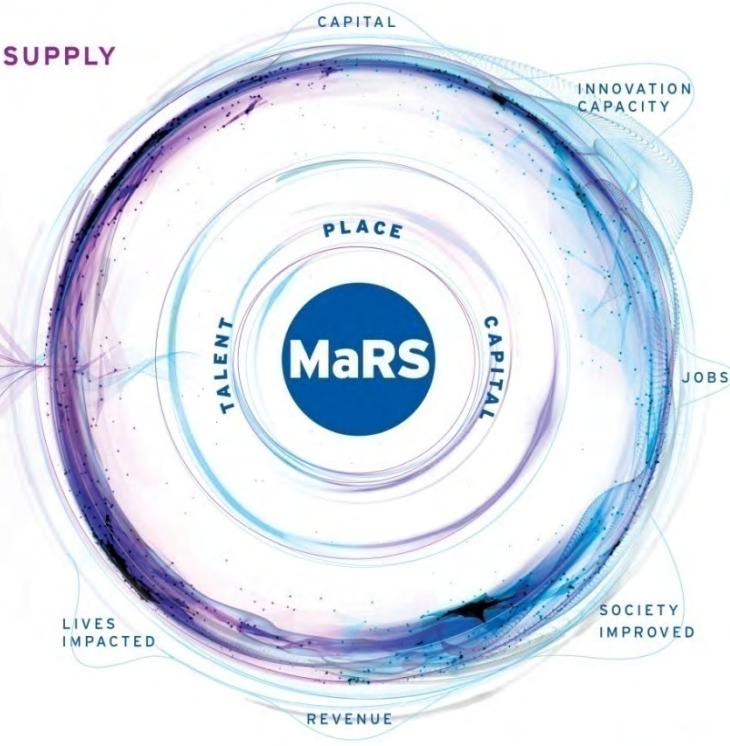


Work & Learning

INNOVATION SUPPLY

High-growth ventures

INTELLECTUAL PROPERTY
INCUBATORS
STARTUPS
INNOVATORS
ACCELERATORS



GLOBAL DEMAND

Strategic customers, markets & systems

Health Systems Innovations



Advanced Energy Centre



Corporate Engagement Program

Centre for Impact Investing

Data Catalyst

Solutions Lab



ATTRACTING THE INNOVATORS WHO WILL CHANGE THE WORLD

MaRS supports innovators who want to achieve strong business results and / or make a positive difference in the world - we identify them by these criteria:

IMPACT – They address big challenges facing Canada and the world

MARKET DEMAND – They have major global market opportunities, consumers not well served by current solutions

DISRUPTION – Exponential acceleration driven by science and technology, digitization and connectivity across converged sectors and disciplines

ASSETS AND EXPERTISE – Toronto, and Canada, are (or can be) centres of excellence



Health

- Biotech & Pharma
- Health & Wellness
- Digital Health
- Medical Devices & Diagnostics



Energy & Environment

- Energy
- Agritech
- Adv. Materials
- Adv. Manufacturing
- Transportation
- Waste Mgmt.
- Water



Finance & Commerce

- AI, Data, & Analytics
- Alt. Finance
- Cybersecurity
- Insurance Tech
- Marketplaces
- Online & Mobile Retail
- Payments
- Retail Tech

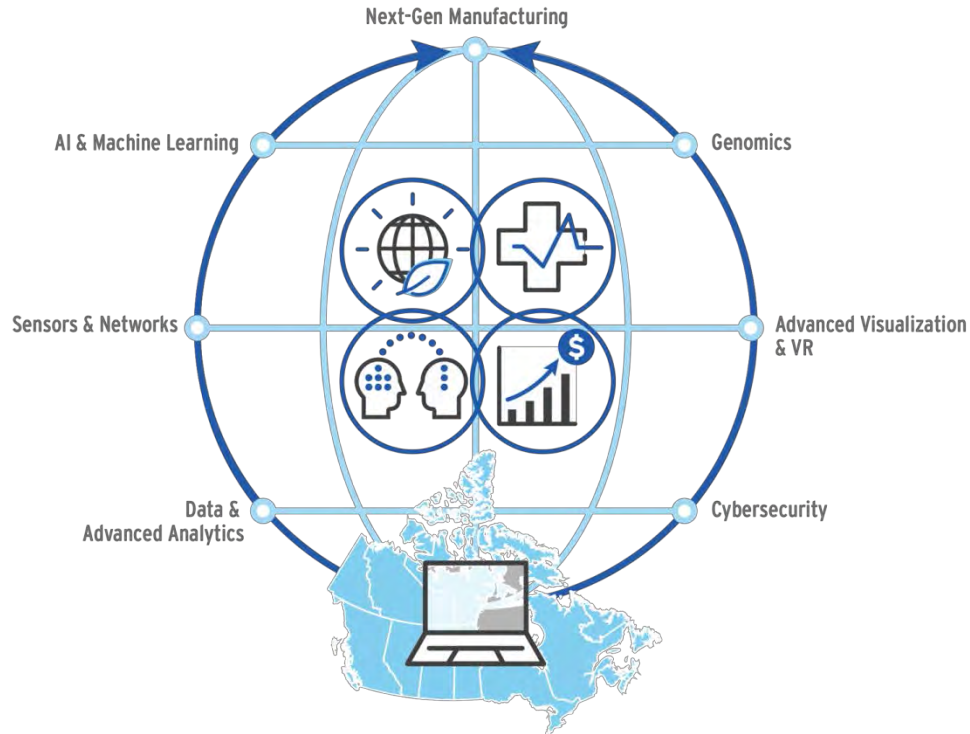


Work & Learning

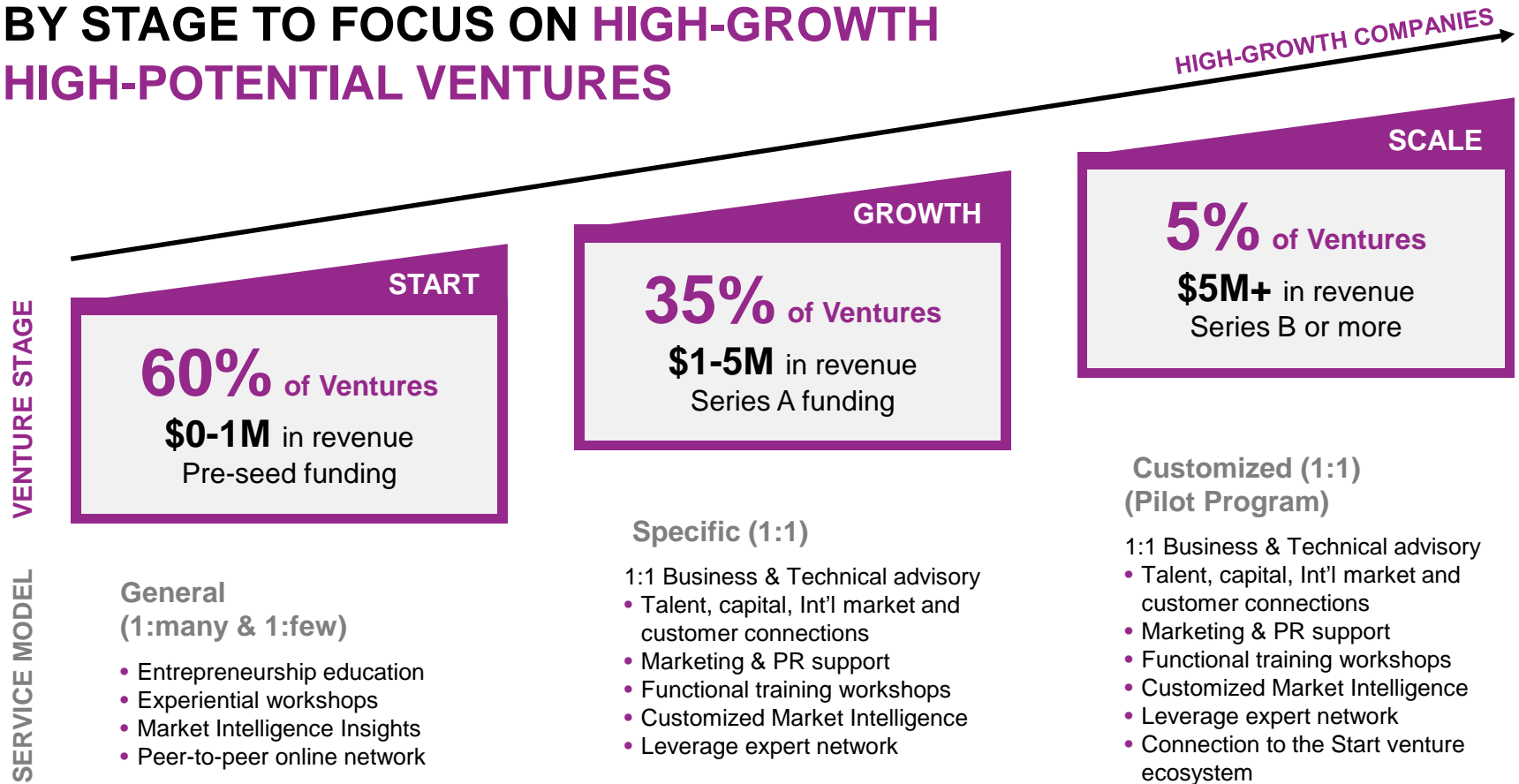
- Business Intelligence
- Education & Training
- HR & Workforce
- Enterprise Software



LEVERAGING CONVERGENCE & EXPONENTIAL TECHNOLOGIES TO ACCELERATE INNOVATION

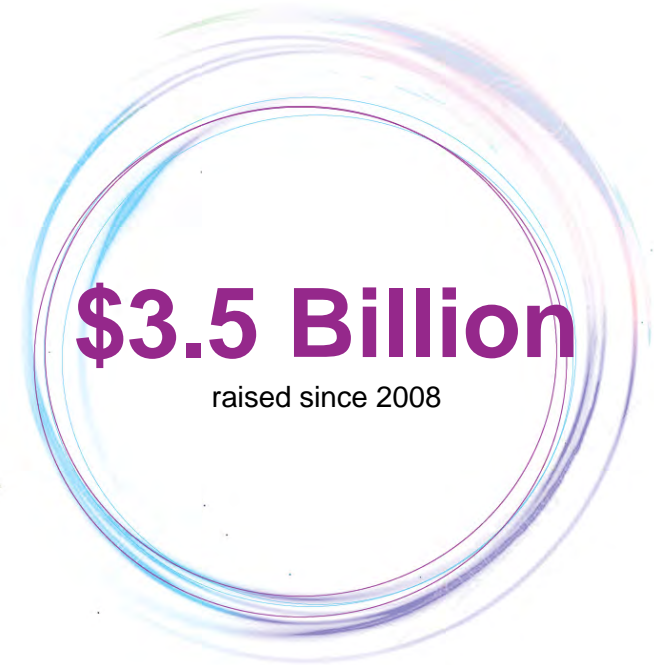
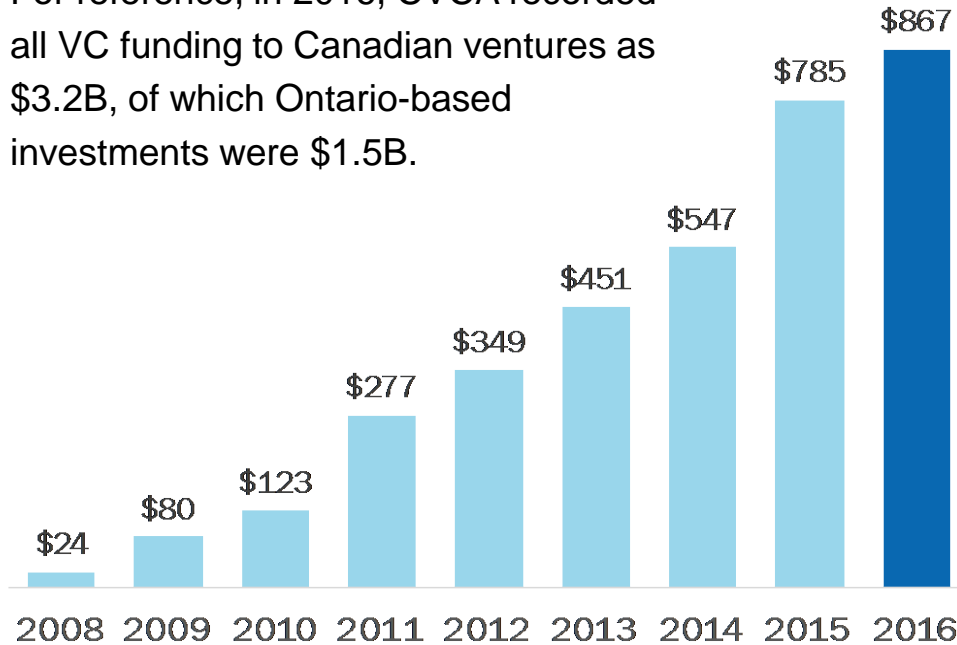


MaRS VENTURE SUPPORT PROGRAMS ARE SEGMENTED BY STAGE TO FOCUS ON HIGH-GROWTH HIGH-POTENTIAL VENTURES



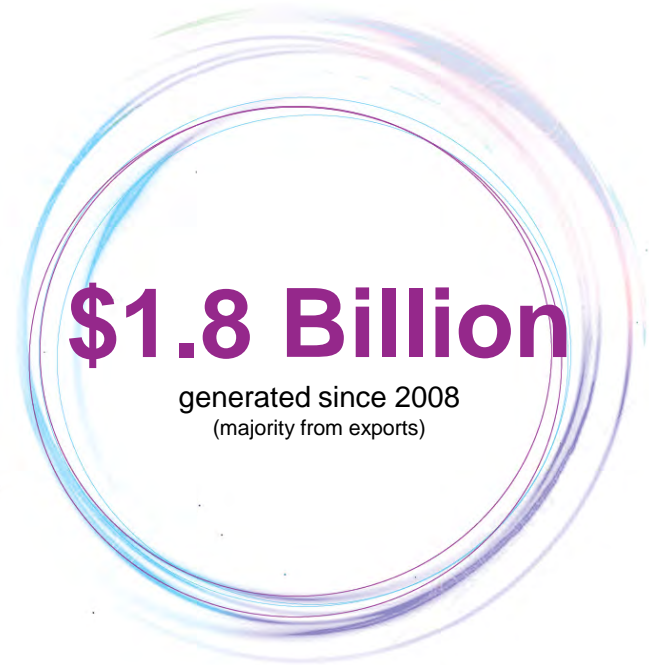
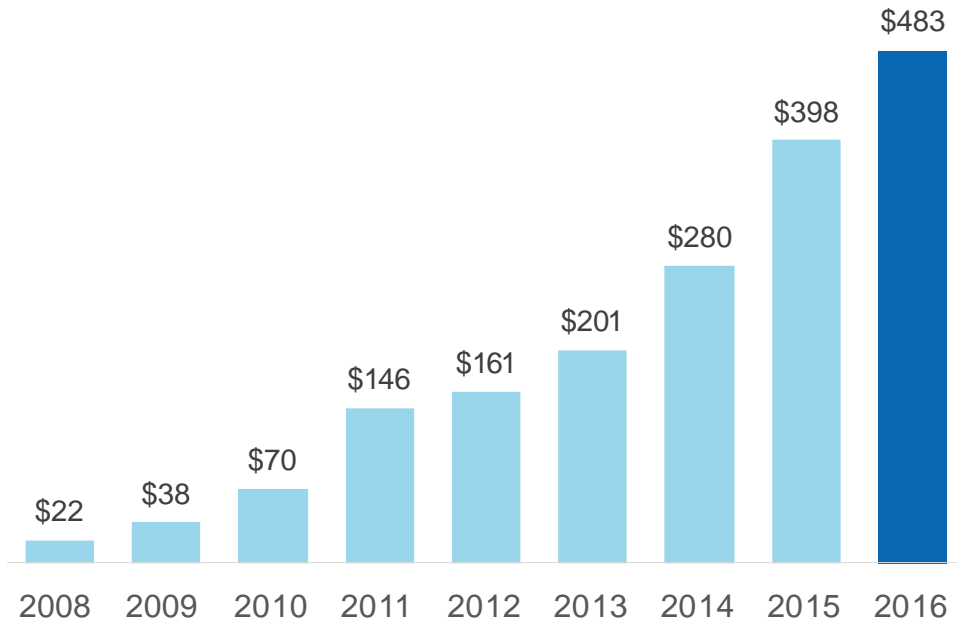
MaRS VENTURES RAISED \$867M in 2016

For reference, in 2016, CVCA recorded all VC funding to Canadian ventures as \$3.2B, of which Ontario-based investments were \$1.5B.



Source: all venture numbers as reported in the 2008-2016 venture client annual surveys. For details, see marsdd.com/survey-methodology. CVCA_2016 MarketOverview

MaRS VENTURES HAVE CONTINUED TO BUILD STRONG REVENUE TRACTION

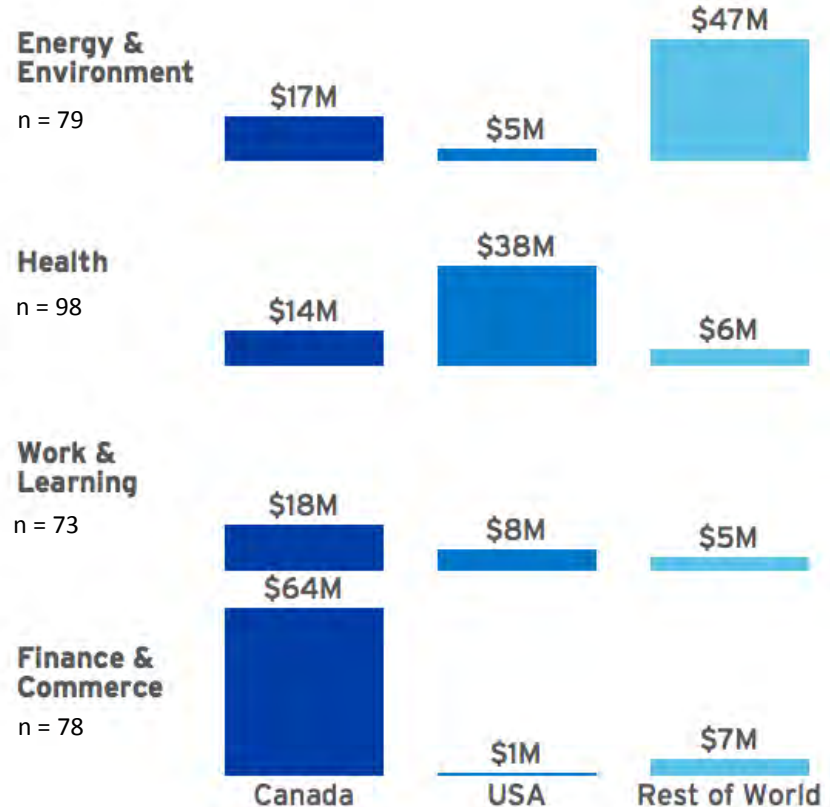
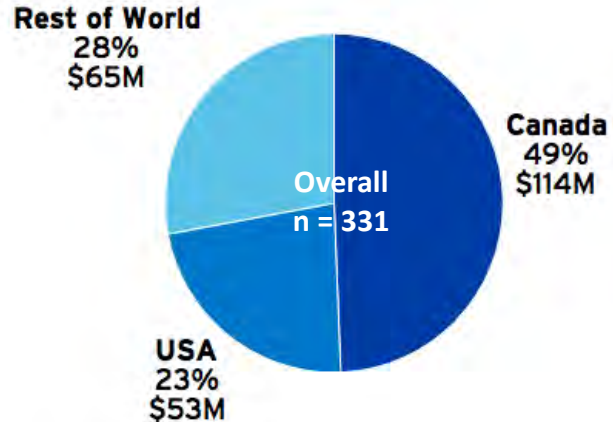


Source: all venture numbers as reported in the 2008-2016 venture client annual surveys. For details, see marsdd.com/survey-methodology. CVCA_2016 MarketOverview

EXPORTS ARE STRONG

52% of revenue (~\$252M) is from undisclosed territory, and is excluded from these visuals.

TOTAL VENTURE REVENUES



For details, see marsdd.com/survey-methodology.

MaRS CHAMPIONS AN INCLUSIVE INNOVATION ECOSYSTEM

MaRS VENTURES BOAST ONE OF THE HIGHEST RATES OF FEMALE TECH FOUNDERS GLOBALLY

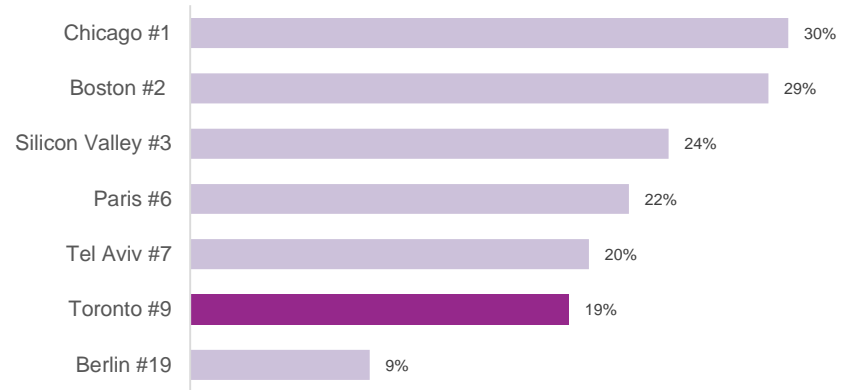
% of MaRS ventures with at least one female founder



With 28% of MaRS ventures having female founders, MaRS matches globally leading gender-diverse tech ecosystems as reported by Startup Genome

Source: all venture numbers as reported in the 2012-2016 venture client annual survey. For details, see marsdd.com/survey-methodology

Startup Genome's 2015 Report ranks major global ecosystems by % of women founders



Note: Startup Genome used a smaller sample set for Toronto that included ventures from other incubators and accelerators as well as MaRS (i.e. DMZ, CDL, OneEleven etc).

Source: Start UP Genome Compass Report, 2015. MaRS numbers as reported through 2016 Venture Client Survey Results

MaRS CHAMPIONS AN INCLUSIVE INNOVATION ECOSYSTEM

Founder demographics reflect the rich diversity of the city and experience; it continues to grow as the ecosystem matures

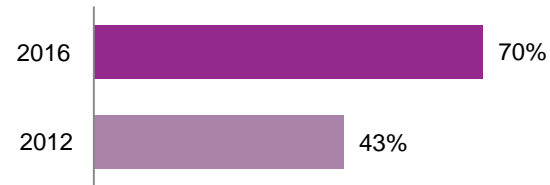
Diversity

% of MaRS ventures with at least one foreign-born founder



Founders with previous startup experience

% of MaRS ventures with 1+ founder having founded previous startup



Source: all venture numbers as reported in the 2012-2016 venture client annual surveys. For details, see marsdd.com/survey-methodology.

MaRS IS MOBILIZING CAPITAL TO CLOSE IMPORTANT FUNDING GAPS

\$100M in capital mobilized by MaRS (as of the end of March 2016) has leveraged an additional \$700M of capital in follow-on funding to help our companies compete globally.

\$700M

In total leveraged funding

Investment Accelerator Fund (IAF)

Province of Ontario Capital (\$48M)
150+ investments of \$500k each
Managed by MaRS

MaRS Catalyst Fund

\$5M Impact Fund: Private Capital
A MaRS Program

ArcTern Ventures (MaRS Cleantech Fund)

Cleantech: \$45M Private Capital
MaRS is an LP

JOLT Accelerator Inc.

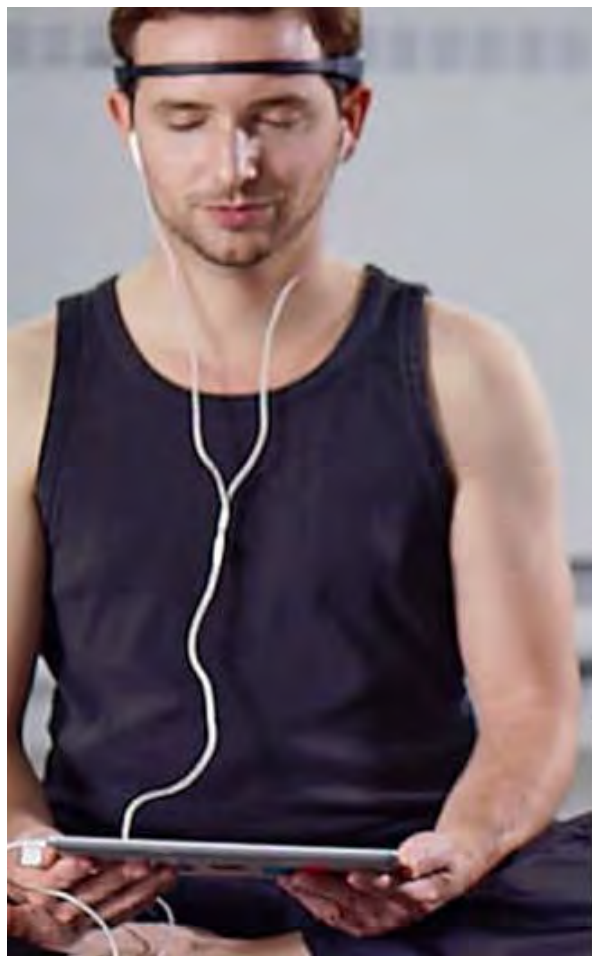
Fully Invested in 2014

New for 2017:

StandUp Ventures

\$5M funding from BDC for a Women's
Entrepreneurship Fund,
Managed by IAF





muse™
the brain sensing headband



fig.1





 **morgansolar**



nanoleaf[®]
Smarter by Design

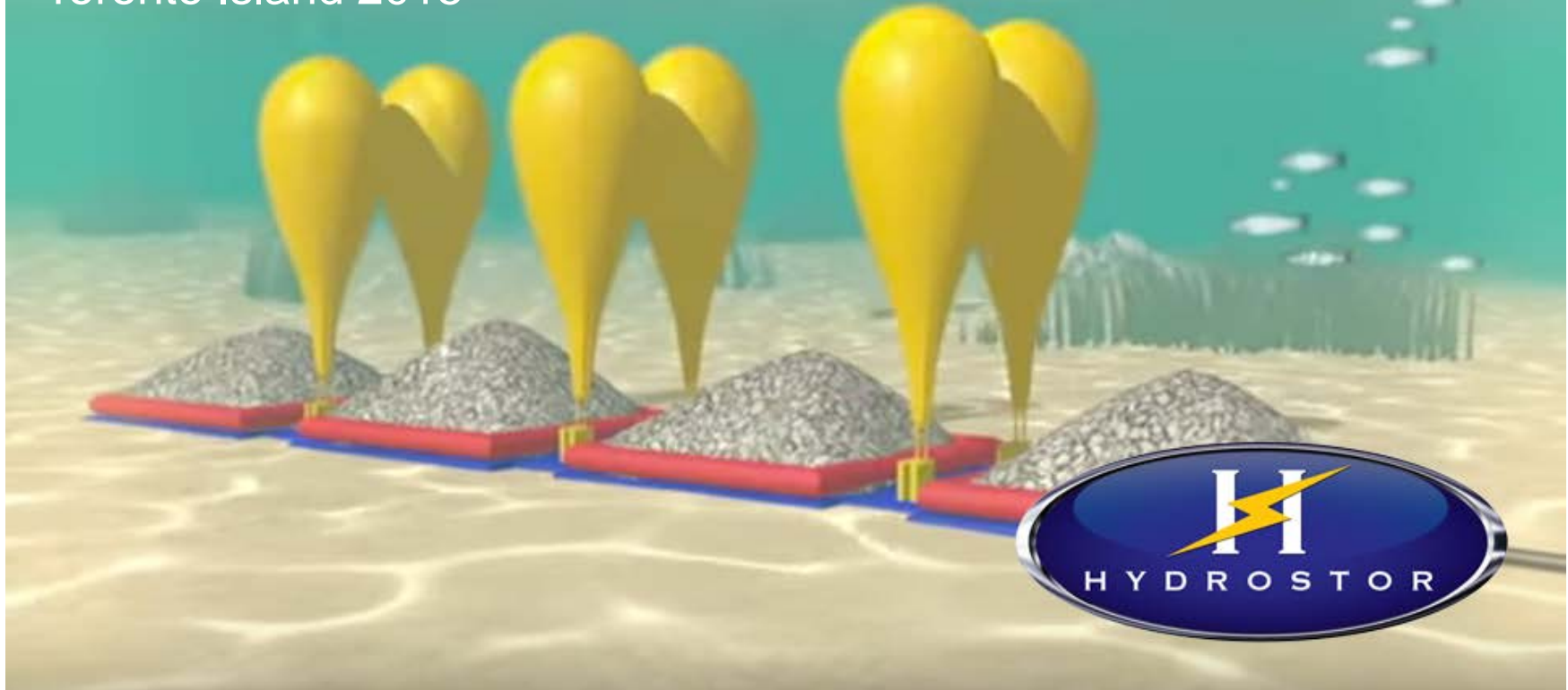




synaptive

World's 1st Underwater-CAES Facility

Toronto Island 2015



Catalyzed and spun off by MaRS in 2009, MaRS Innovation was one of MaRS' initial "systems" initiatives and continues to work closely with MaRS as part of an integrated commercialization and acceleration platform.



**MaRS
Innovation**

Single Commercialization
Storefront for Academic Institutions

Startups



Business Accelerator for Ontario's
Emerging Companies



**Licensing & Industry
Co-development**



**Entrepreneurs from
Across Ontario**

ENTREPRENEURSHIP 101 (E101)



**E101 IS CANADA'S
LARGEST ONLINE
ENTREPRENEURSHIP
COURSE**

marsdd.com/ent101

After 10 years of in-person and online programming, we believe that reinventing E101 for an online audience represents a great opportunity to improve the way entrepreneurs in our community learn the process and methodology behind hypothesis-driven entrepreneurship.

E101 launched with 1,860 enrolments in November 2016 and delivers a new version of the course each quarter.

ENTREPRENEUR'S TOOLKIT COLLECTIONS

marsdd.com/collections

STARTUP FINANCE

Find out how to deliver an effective pitch, understand a term sheet and raise money.



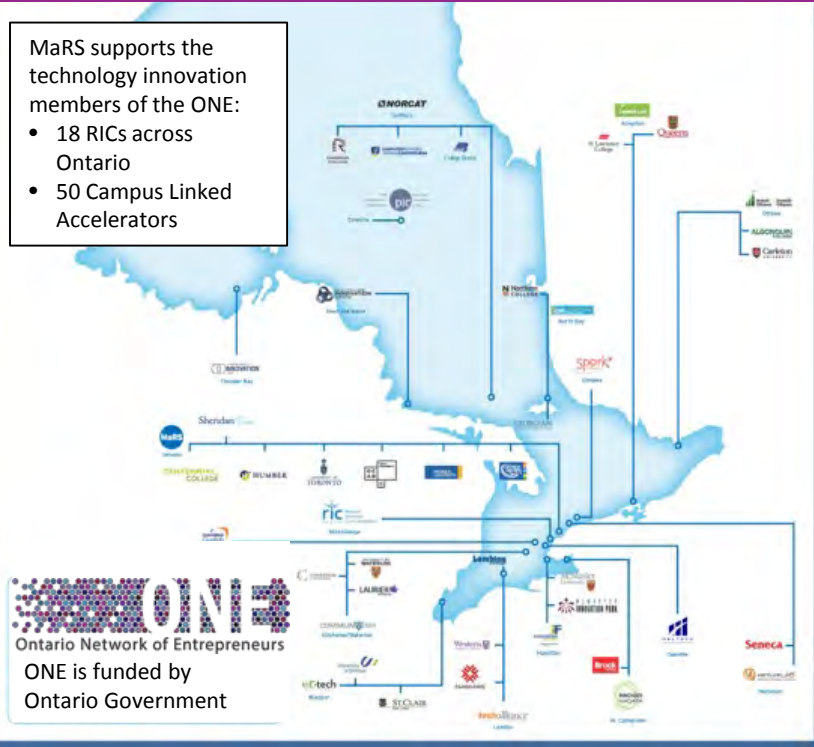
WHAT ARE COLLECTIONS?

Collections offer key library resources curated by topic. Find articles, videos and templates to help you launch and grow your startup.

In addition to direct support of 1200+ ventures, MaRS provides co-ordinated programming and support services to the Ontario Innovation Ecosystem via the ONE

MaRS supports the technology innovation members of the ONE:

- 18 RICs across Ontario
- 50 Campus Linked Accelerators



PROGRAMS MANAGED BY MaRS **AND FUNDED BY MRIS** THAT SUPPORT THE ONE INCLUDE:

Investment Accelerator Fund (IAF)

A seed-stage fund for early-stage growth capital of up to \$500k

Business Acceleration Program (BAP)

Provides support and mentoring services to early-stage ventures to accelerate their growth

Data Catalyst

Administers the ONE Innovation Data Partnership on behalf of the Province - tracking impact for ONE Innovation Members, and aggregating and sharing insights

INVENTION
+
ADOPTION
=
INNOVATION



MaRS' unique innovation model goes beyond direct venture support to **OPENING MARKETS AND DRIVING ADOPTION**

Innovation only happens when new products and services reach their target customers and markets. This is often the hardest part of the innovation lifecycle, especially in highly regulated markets like health, energy and finance. MaRS works with partners to help open these markets, address regulatory barriers that have slowed the adoption of new technologies and increase the innovation capacity in these systems.



Health Systems Innovations



Advanced Energy Centre



Corporate Engagement Program

Centre for Impact Investing

Data Catalyst

Solutions Lab



GLOBAL DEMAND

Strategic customers, markets & systems

CORPORATE INNOVATION PARTNERS

MaRS WORKS TO ACCELERATE THE ADOPTION OF TECHNOLOGY
BY A DIVERSE RANGE OF CORPORATE PARTNERS



Demand-side systems initiatives evolved in response to recognized barriers to technology adoption...

MaRS | CENTRE FOR
IMPACT INVESTING

2011

(CII)

Challenge: Limited awareness about the opportunity of impact investment in Canada.

MaRS EXCITE

2011

**Excellence in
Clinical Innovation
and Technology
Evaluation (EXCITE)**

Challenge: Ontario medtech innovation and healthcare investment were disconnected. Ontario startups did not have a pathway to adoption and patients did not have access to the best made-in Ontario technologies.

MaRS Data Catalyst

2012

Green Button

Challenge: Smart Grid and energy management solutions need to access data from utilities and smart meters to scale, but there is no consistent and secure way for them to connect, globally.

2013

MyHealth Challenge:

The health system is slow to adopt digital health solutions for clinicians and consumers have not consistent and secure way to access the provincial eHealth data infrastructure.

MaRS Solutions Lab

2013

Challenge: Need for modernization of government regulation and lack of cross-sector collaboration in removing barriers to innovation.

ADVANCED ENERGY CENTRE

2014

(AEC)

Challenge: Despite being a leader in energy policy (smart meters, coal closures, solar and wind, etc), Ontario did not experience the expected follow on economic development – because the system itself does not adopt innovation well.

Procurement by Co-Design: 2016

Challenge: Publicly funded health delivery organizations in Ontario were using price (commodity purchasing) instead of value to procure new health technologies, effectively shutting out innovative technologies developed by smaller firms.

...and keep MaRS and Ontario at the forefront of global thought leadership on emerging approaches for building innovation economies and solving complex barriers

MaRS | CENTRE FOR IMPACT INVESTING

- G7 Social Impact Investment Taskforce
- SVX partnerships in California and Mexico
- Partnership with Social Finance US and UK on pay-for-success projects
- Launched Canada's first national Social Impact Bond (SIB)
- Introduced B Corps to Canada

MaRS EXCITE

- BresoDx, first EXCITE graduate, now being adopted by Ontario health system
- Pioneered global best practice in harmonizing pre- and post-market health tech assessment
- **EXCITE International** spun out in 2016 with network of >45 players in US, UK, EU and Asia/Pacific.

MaRS Data Catalyst

- Partnered with US White House and NIST to develop Green Button
- Founding member of Global Entrepreneurship Research Network (GERN) with World Bank, NESTA, Endeavour, Kauffman Fdn



MaRS Solutions Lab

- Solutions Lab considered global leader in field of public and social innovation labs
- Hosted global labs summit (2014)
- Invitations to speak at international events >5 year
- Worked with international funders like Rockefeller Fdn
- Work is seen as global best practice (e.g. by OECD, WEF)

ADVANCED ENERGY CENTRE

- International partners include Eneco (Netherlands), Celsia (Colombia), EEPA (Chile), EDC (Canada)
- Partnered with RMI (Rocky Mountain Institute) to deliver Newtonian Shift in US with New York Power Authority, California ISO
- MOUs with JITRI (China); Tech Mahindra & Himachal Pradesh State Electricity Board (India); Jalisco (Mexico)

MaRS CENTRE FOR IMPACT INVESTING

The Centre unlocks the power of private capital to tackle persistent social challenges.



CAPITAL ADVISORY SERVICES

Advise on the creation and execution of social finance and impact investing strategies and tools.



VENTURE SERVICES

Support promising social enterprises and connect them with impact investors.



RESEARCH & POLICY

Advocate for the policy and regulatory changes necessary to encourage growth of the impact investing market.



CATALYST FUND

Invest in early stage companies that have an environmental or social mission.

\$91 million capital mobilized to date

Launched the SVX investment platform

Launched \$4m social impact bond in health

Virgin as lead \$5m impact fund investor

MaRS HEALTH SYSTEM INNOVATION

DISRUPTING SYSTEM ENABLERS & PROCESSES TO INCREASE THE HEALTH SYSTEM'S INNOVATION CAPACITY

PROGRAM AREAS

INNOVATION ADOPTION &
PROCUREMENT

APPLICATION OF HEALTH DATA

CAPITAL & BUSINESS MODEL
INNOVATION

INNOVATION MINDSETS

MaRS EXCITE

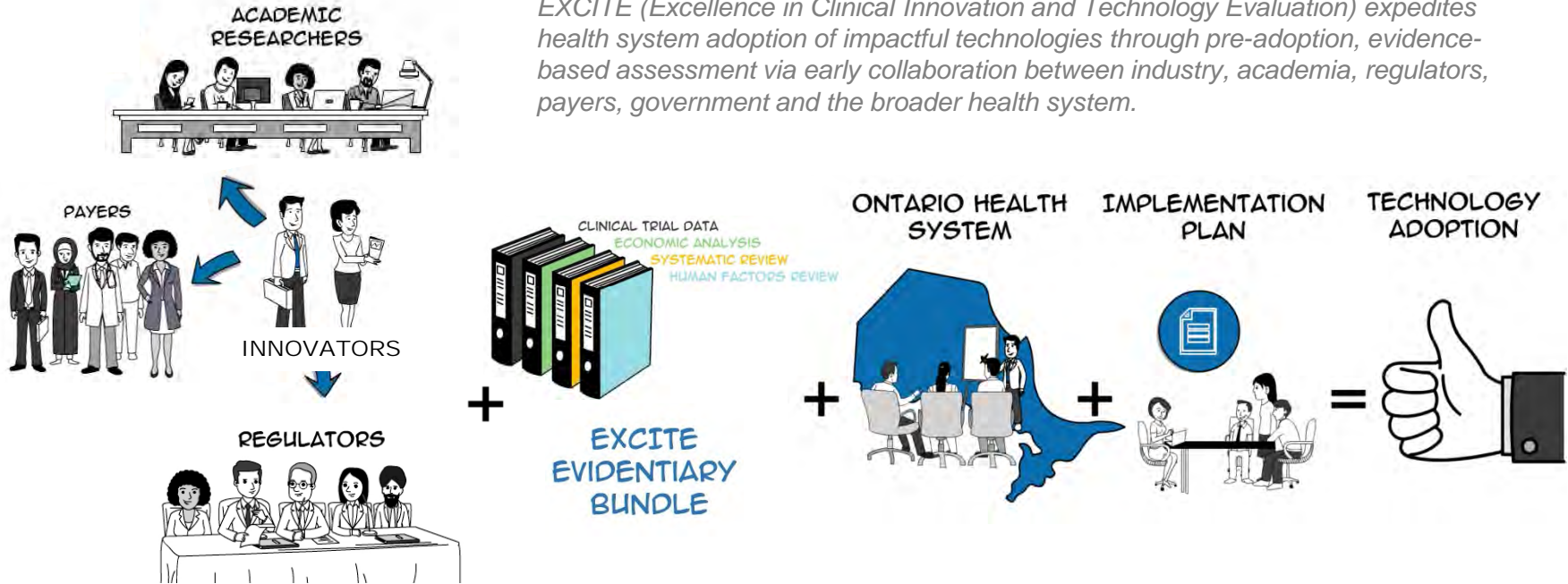


INNOVATION MEET-UP

PROJECTS

EXCITE

EXCITE (Excellence in Clinical Innovation and Technology Evaluation) expedites health system adoption of impactful technologies through pre-adoption, evidence-based assessment via early collaboration between industry, academia, regulators, payers, government and the broader health system.

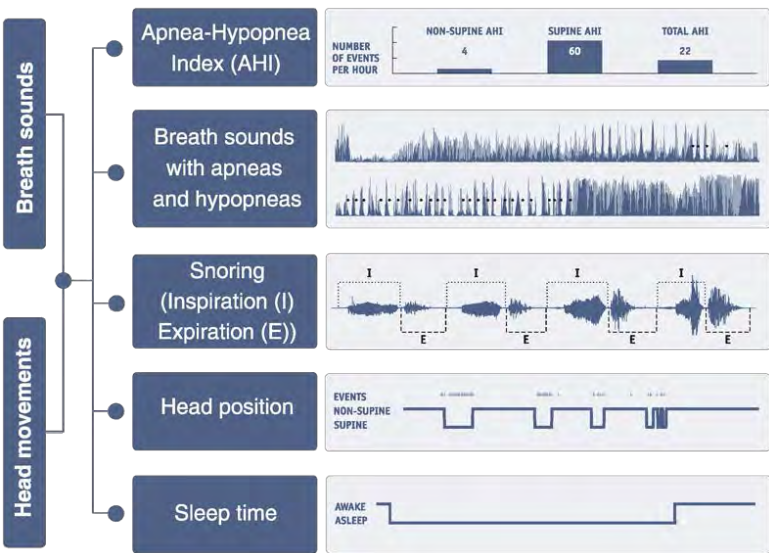


**ENABLING FASTER MARKET ACCESS OF DISRUPTIVE TECHNOLOGIES
FOR IMPROVED HEALTH SYSTEM OUTCOMES**



BresoDx

by *BresoTec Inc.*





DATA-DRIVEN INNOVATION

CONNECTING INNOVATORS & DATA TO ENHANCE HEALTH SERVICE DELIVERY & EMPOWER PATIENTS

Supported by **MaRS Data Catalyst**

Data Catalyst is focused on building the data layer for the innovation economy and creating new markets through smarter data access.



SPARK

Igniting digital health innovation.








HEALTHY BEHAVIOUR DATA CHALLENGE







OUTCOMES-BASED MODELS

DESIGNING NEW BUSINESS MODELS
FOCUSED ON MEASURING AND PAYING
FOR OUTCOMES

\$4m social impact bond in health

Fig. 2 Heart and Stroke PFS structure



Supported by **MaRS Centre for Impact Investing**

The Centre unlocks the power of private capital to tackle persistent health and social challenges.



MaRS DATA CATALYST

OPENING MARKETS THROUGH ACCESS TO DATA

Enabling secure access to **health records** to scale digital health solutions for clinicians and consumers

Creating new models for **digital population health surveillance** with public health agencies across North America

Enabling secure access to **energy data** (Green Button) to scale energy management services and global export opportunities

In development: Access to complete **smart home** and building data and a **financial services** sandbox

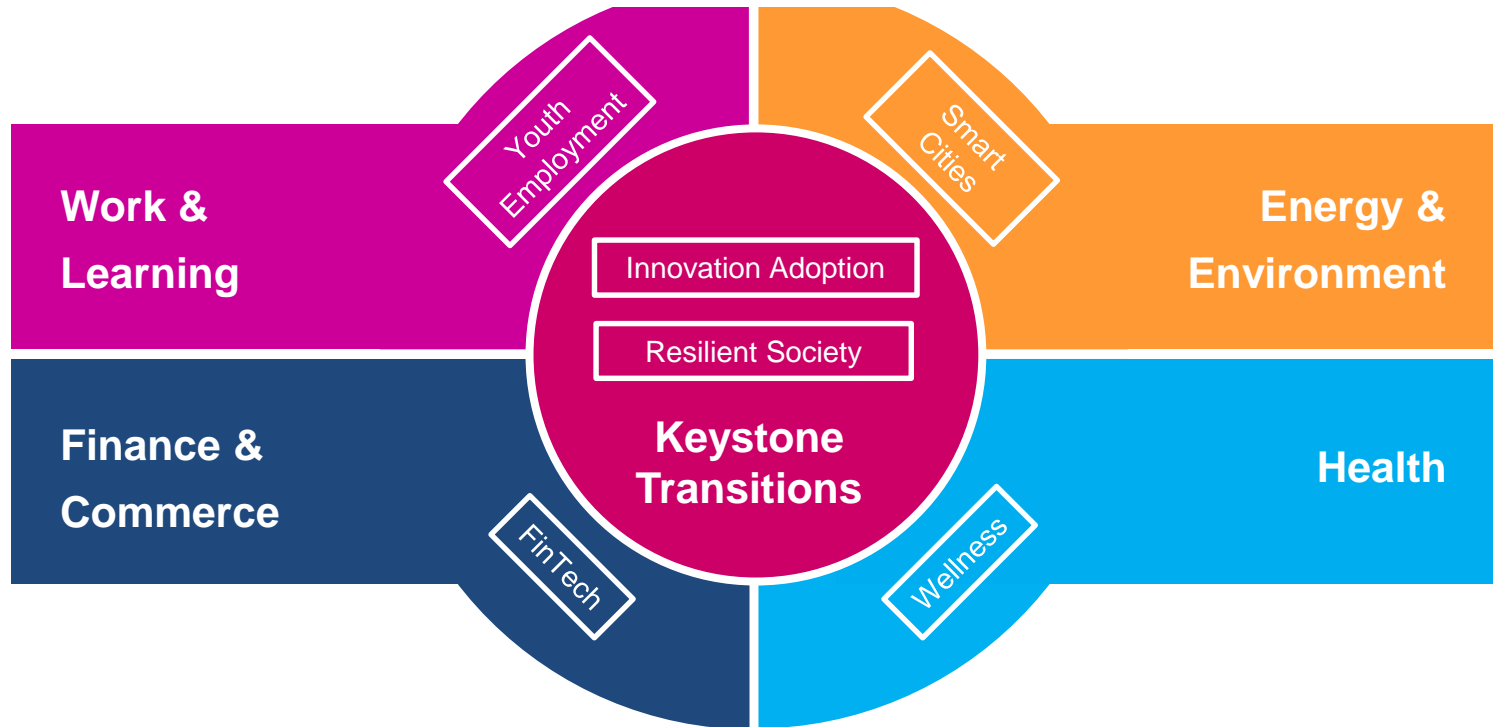
TRACKING THE INNOVATION ECONOMY

Enabling the ecosystem to scale startups by tracking companies, investors, talent, and markets over time, sector and location



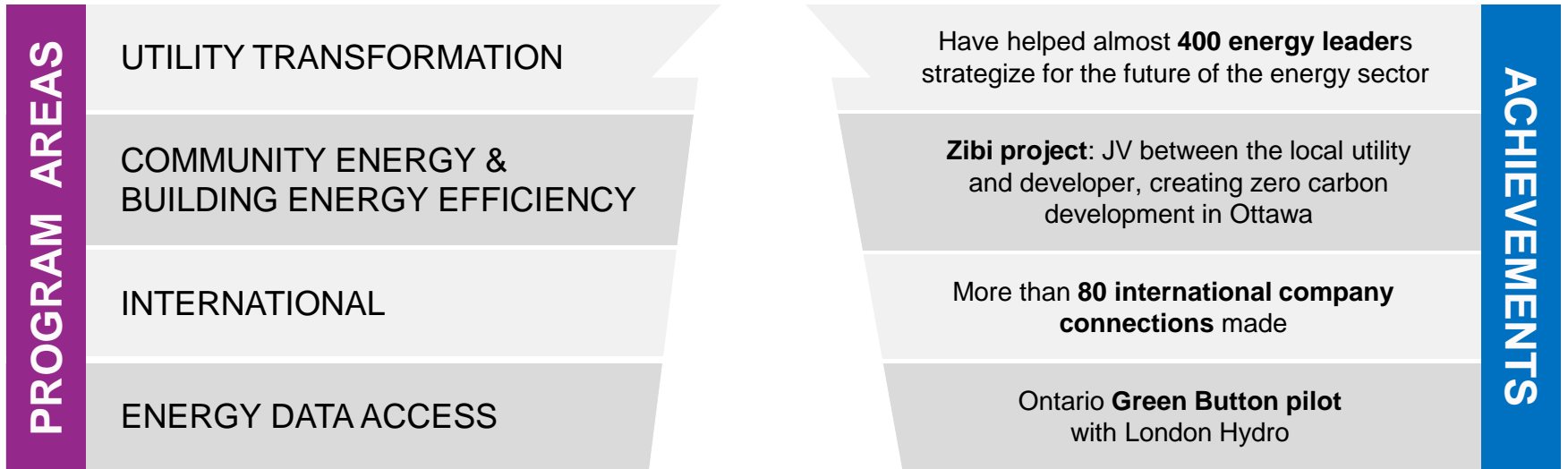
MaRS SOLUTIONS LAB

MaRS Solutions Lab convenes changemakers around today's most complex and important challenges so all Canadians can flourish tomorrow



MaRS ADVANCED ENERGY CENTRE

FOSTER the adoption of innovative energy technologies in Ontario and Canada
LEVERAGE those successes and experiences into international energy markets



The Advanced Energy Centre (AEC), founded in February 2014, is a partnership between MaRS Discovery District, the Ontario Ministry of Energy and the private sector, with Siemens and Capgemini as founding partners.



MaRS

MaRS OVERVIEW

Thank you