

SMART CITY TASK FORCE – JUNE 22, 2021**COMMUNICATIONS****Distributed June 21, 2021**

		<u>Item</u>
C1.	Background Information and Discussion Questions	1
C2.	Presentation material titled: “ <i>Smart City Task Force</i> ”	1

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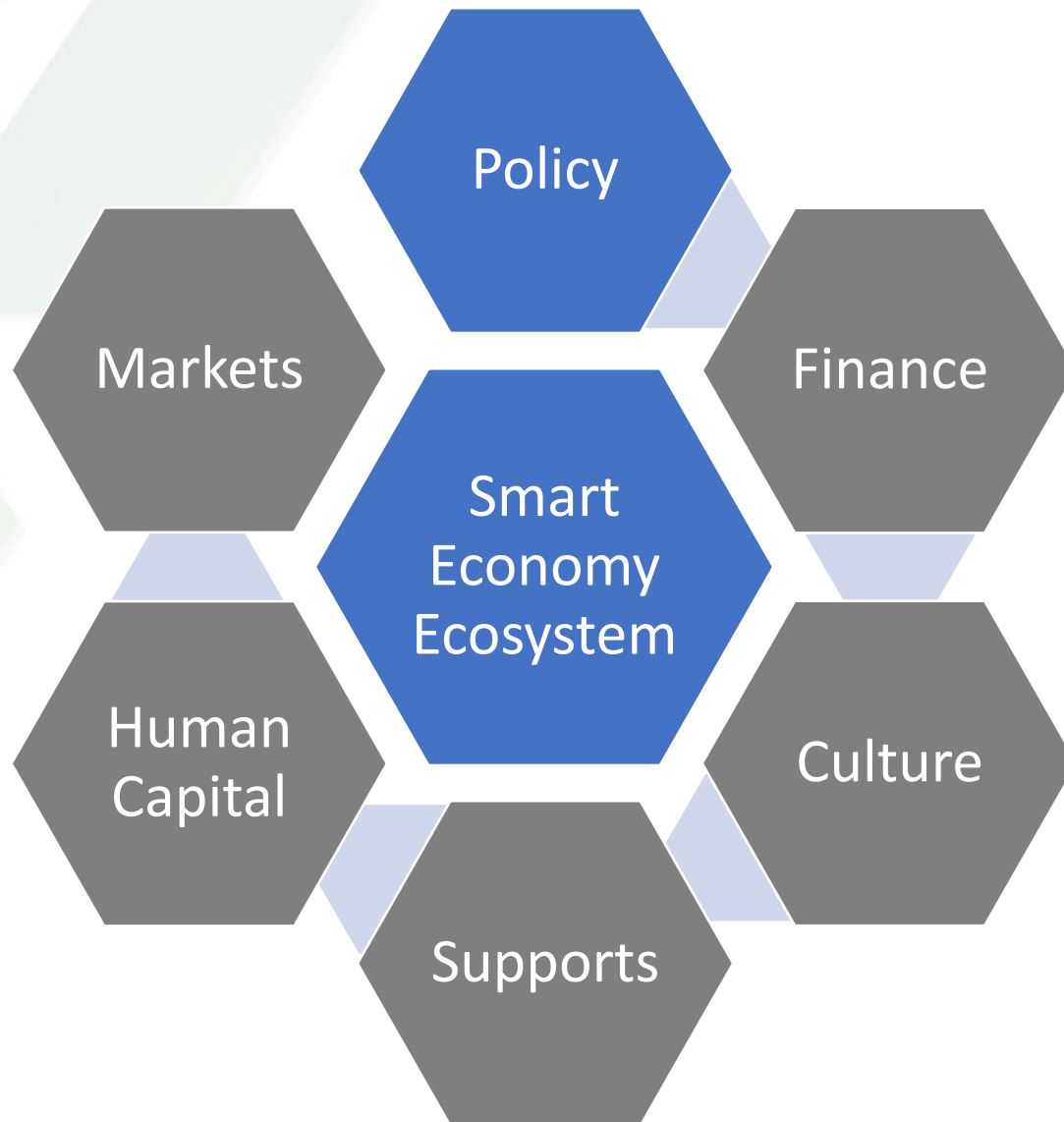
Please note there may be further Communications.

Communication : C 1
Smart City Task Force
June 22, 2021
Item # 1

Ecosystem Pillars



Source: Daniel Isenberg: <https://www.forbes.com/sites/danisenberg/2011/05/25/introducing-the-entrepreneurship-ecosystem-four-defining-characteristics/?sh=6fa81cda5fe8>

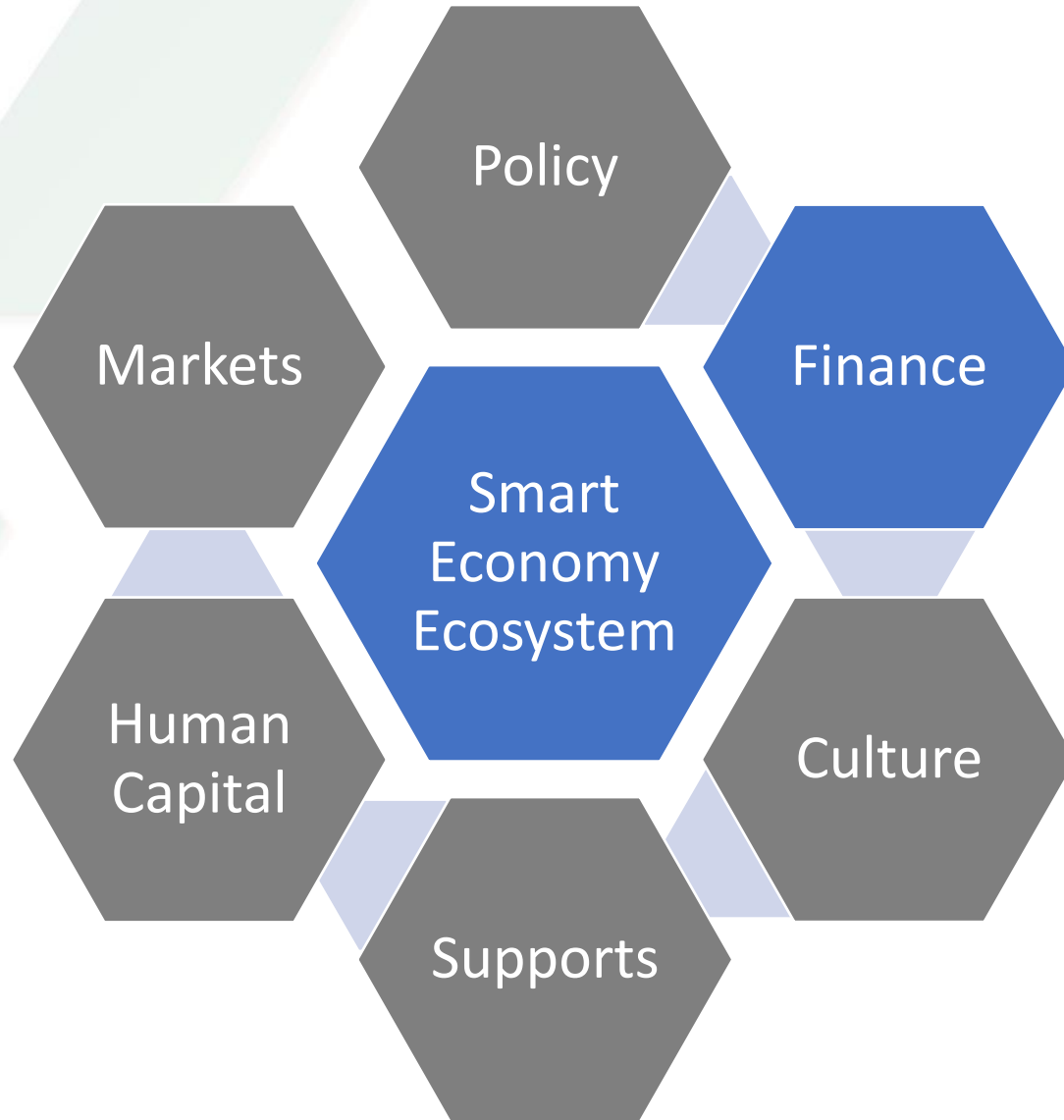


Leadership

- Unequivocal support
- Social legitimacy
- Transparent advocacy process
- Recognizes the value

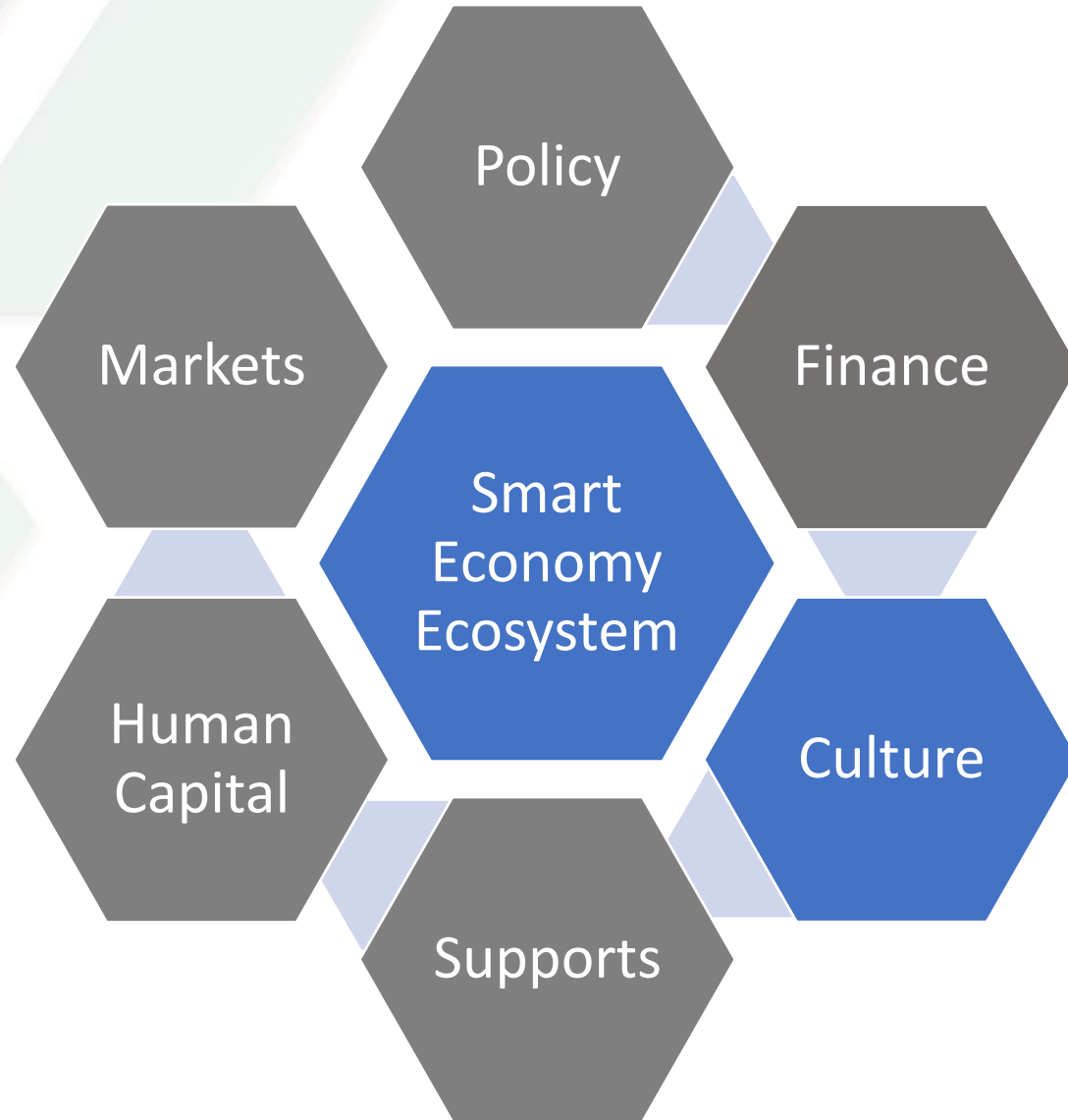
Government

- Institution e.g. investment and support
- Financial support e.g. for R&D, jump start funds
- Regulatory framework
- Research institutes
- Venture-friendly legislation, contract enforcement, property rights and labour



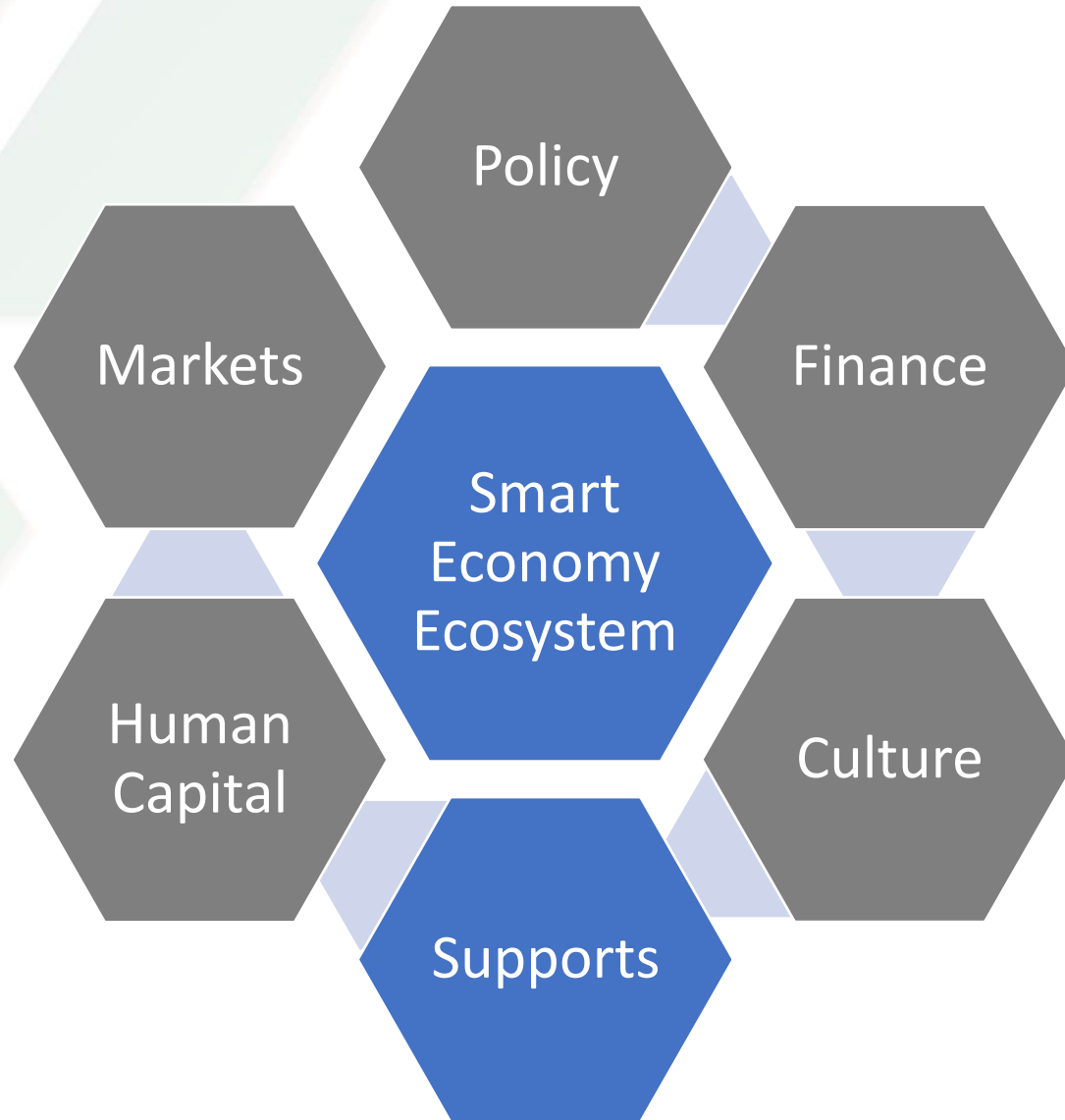
Financial Capital

- Micro-loans
- Angel investors, friends, family
- Venture capital funds
- Private equity
- Public capital markets
- Debt



Societal/Commercial Norms

- Visible successes
- International reputation
- Tolerance of risk, mistakes, failure
- Innovation, creativity, experimentation
- Social status of entrepreneur
- Society wellbeing
- Wealth creation
- Ambition, drive, hunger
- Collaborative
- Openness
- Equity and accessibility



Infrastructure

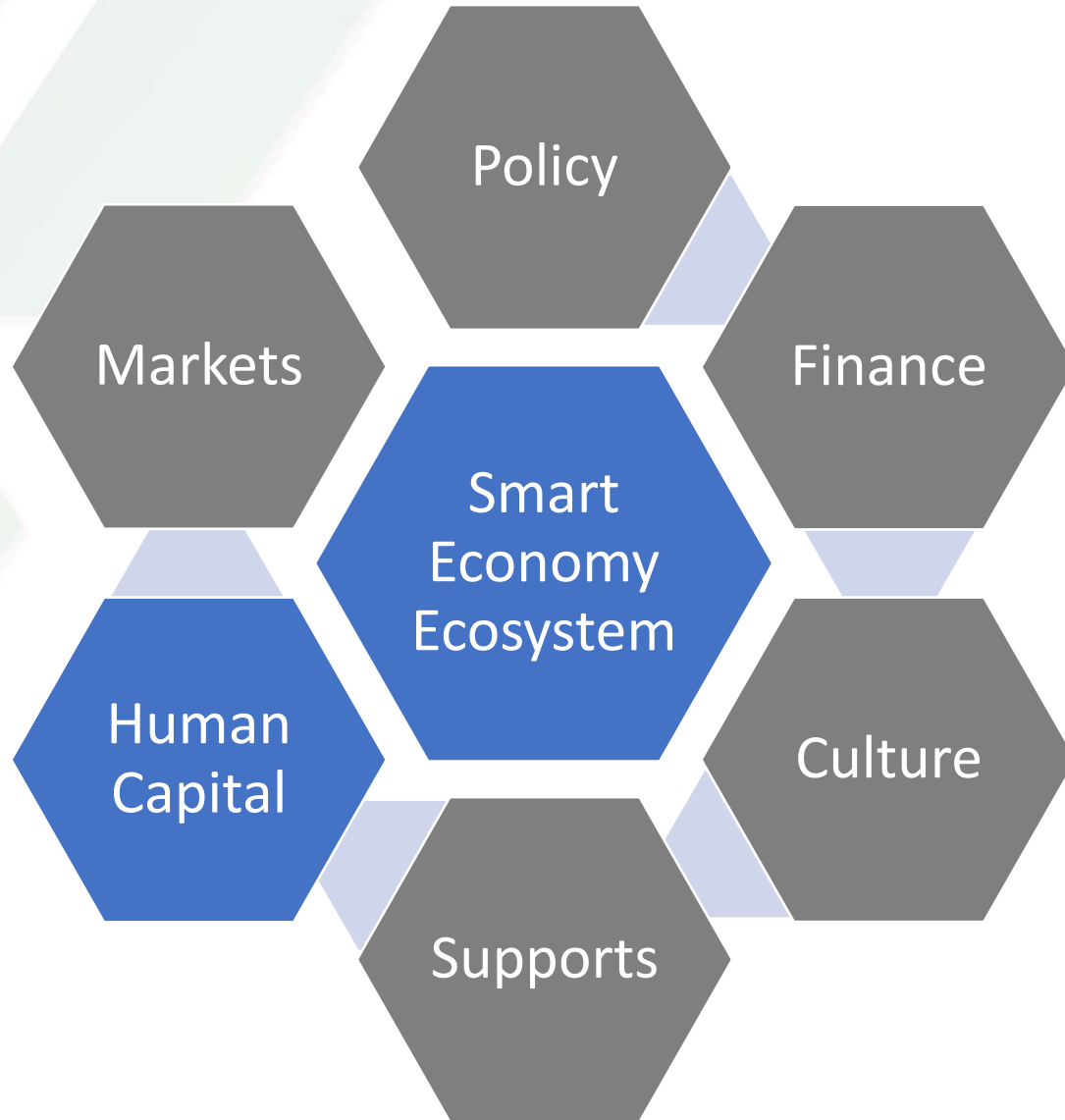
- Telecommunications
- Transportation & logistics
- Energy
- Zones, incubators, co-working, clusters

Support Professions

- Legal
- Accounting
- Investment bankers
- Technical, experts, advisors
- Researchers

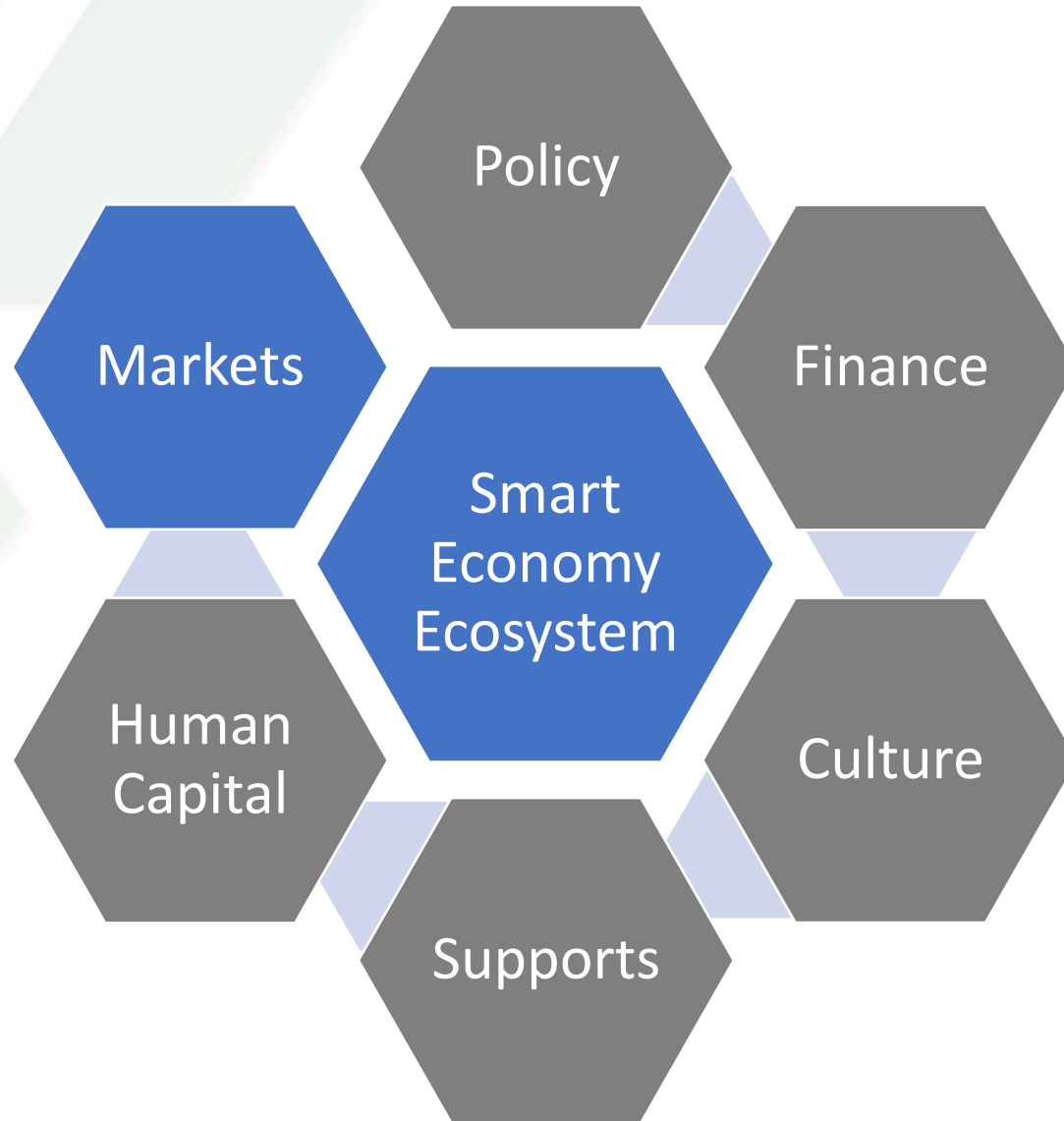
Non-governmental institutions

- Business advisory services
- Conferences
- Business associations e.g. Chamber
- Post-secondary institutions



Labour

- Skilled and unskilled
- Corporate innovators
- Serial entrepreneurs
- Community mentorship
- Postsecondary degrees (professional and academic)
- Entrepreneurship and innovation training



Early Adopters

- Early adopters for proof of concept
- Expertise in commercialization
- Reference customer
- First reviews
- Distribution channels
- Co-development opportunities

Networks

- Entrepreneur networks
- Diaspora networks
- Multinational corporations

Smart Economy

Discussion

Discussion Questions

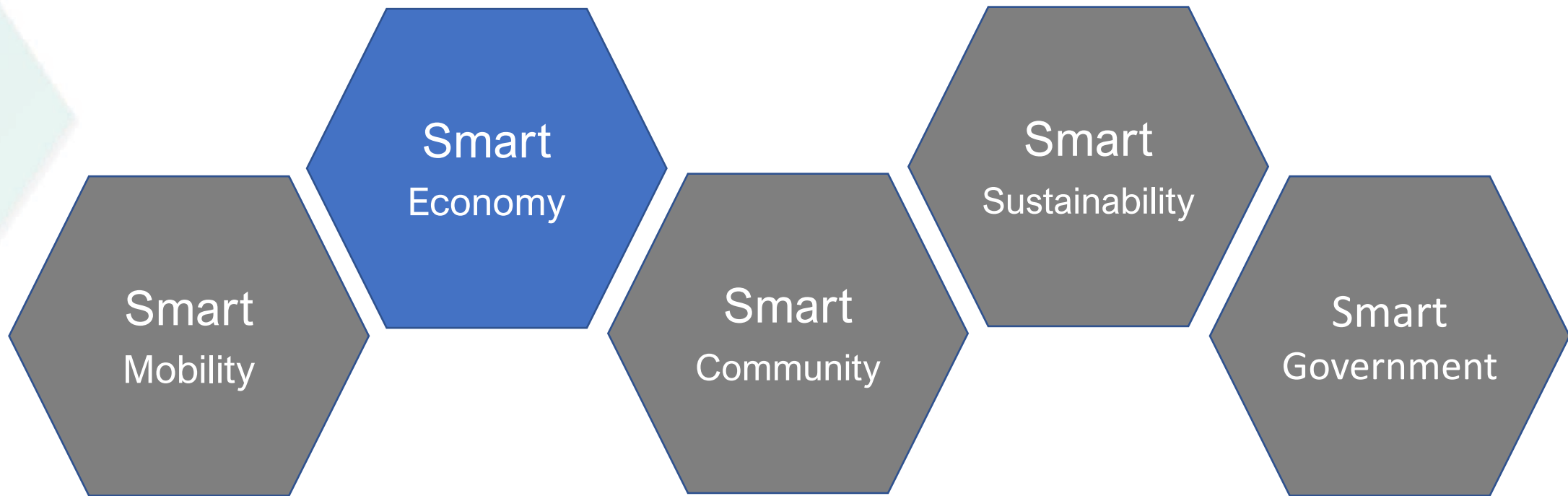
1. Which ecosystem pillar(s) should we focus on in order to attract a cluster of disruptive and emerging technology companies to Vaughan?
2. What opportunities are there to support a stronger innovation culture in Vaughan?
3. How can we position Vaughan as the place for disruptive and emerging technology hub? What strategies and tactics should we consider?
4. How can you/organization help contribute to Vaughan's smart city ecosystem?

**Communication : C 2
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Smart City Task Force

June 22, 2021

5 Strategic Themes



Smart Economy Goals

**Sustain a globally competitive economy
by attracting a cluster of smart city
companies – emerging and disruptive
technology hub**

**Smart ecosystem development,
a vibrant entrepreneurship and
innovation support ecosystem**

**Embark on transition towards circular
economy (i.e. reuse and sharing
resources)**

**Attract and retain innovative and highly
skilled workforce**

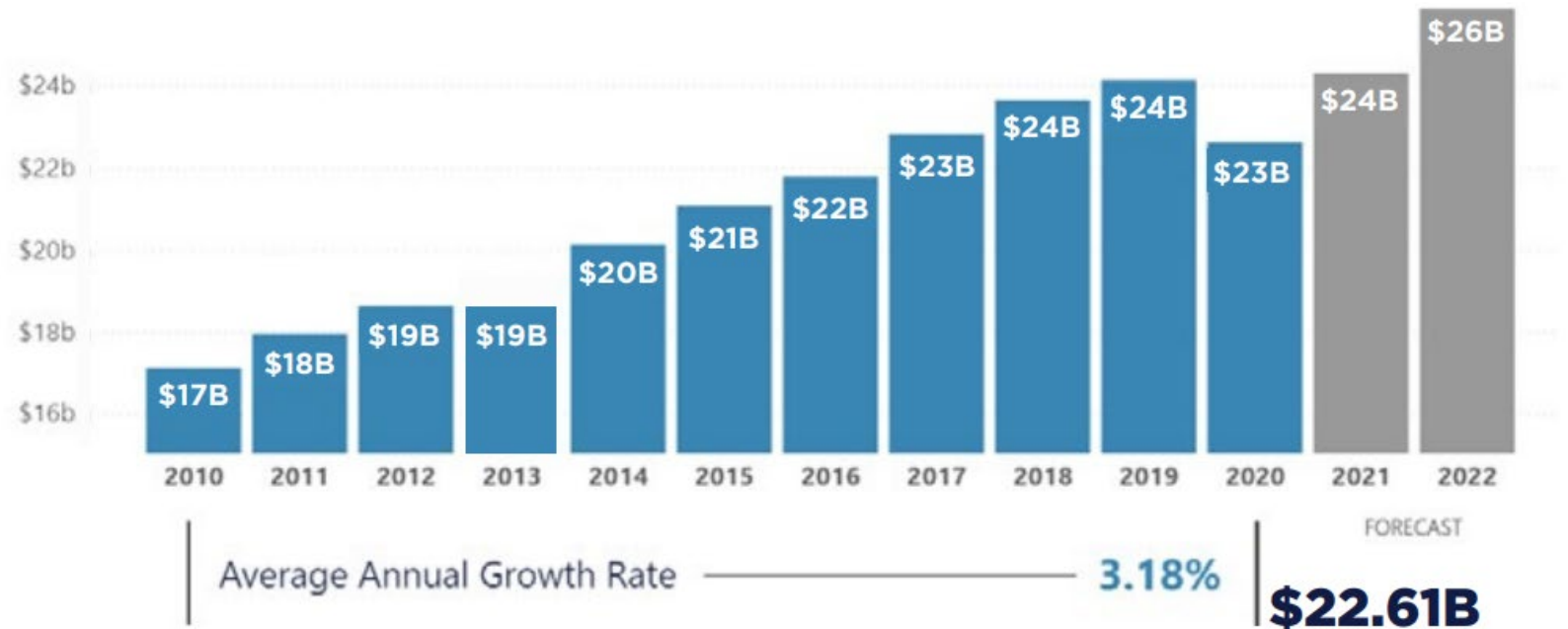


Vaughan **By the Numbers**

Vaughan By the Numbers

REAL GROSS DOMESTIC PRODUCT

With exceptional economic growth pre-pandemic, **Vaughan is anticipated to make a strong recovery.**



GDP growth rate
nearly double the provincial
and national rates (2010-2019)

YORK REGION'S LARGEST ECONOMY:
Vaughan accounts for **37%**
of York Region's total GDP.

\$22.61B
2020 Real GDP
(chained in 2012 CAD)

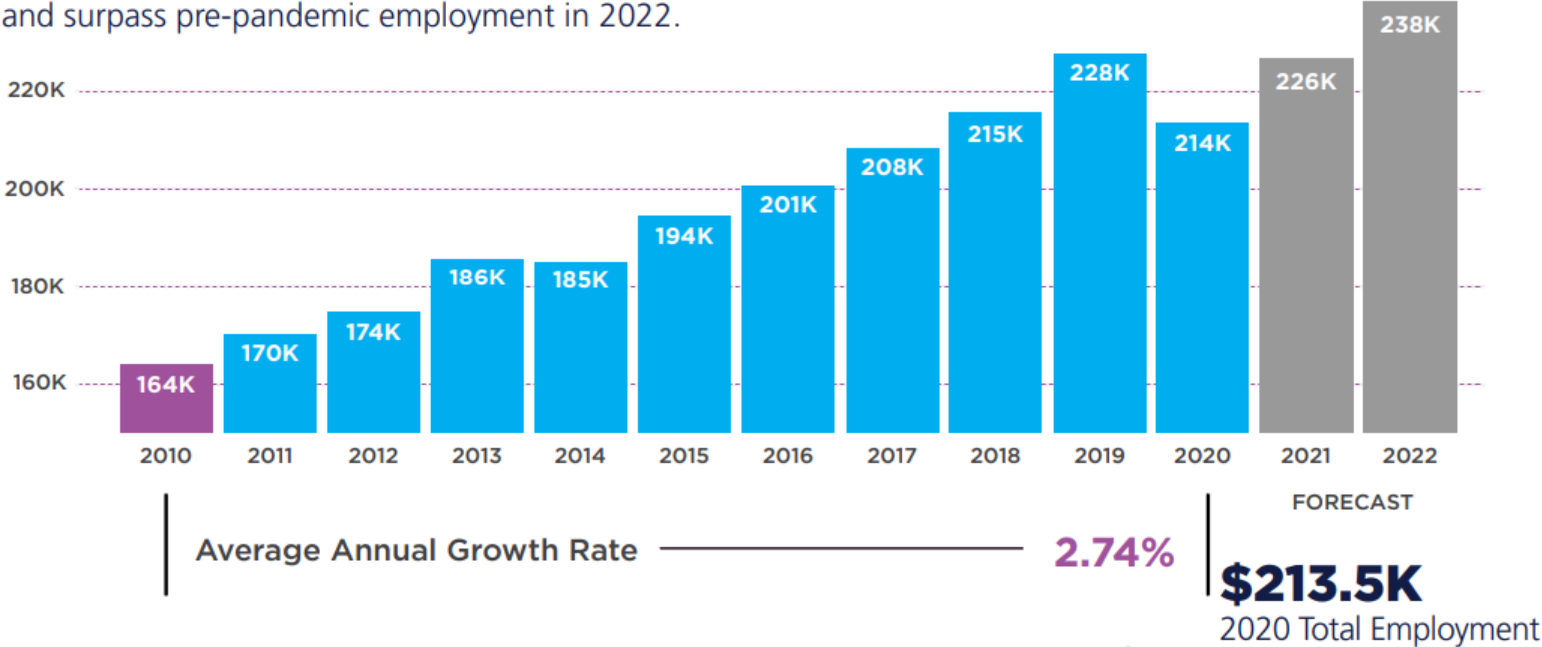
*The Conference Board of Canada. 2021. Regional Municipality of York Economic Forecast, 2009-2020.
Statistics Canada. 2021. Gross domestic product (GDP) [chained 2012 dollars], 2009 to 2019.*

Vaughan

By the Numbers

TOTAL EMPLOYMENT

Vaughan's highly educated and skilled workforce to rebound in 2021 and surpass pre-pandemic employment in 2022.



Employment growth rate more than double the provincial and national rates

2020 UNEMPLOYMENT RATE: 9.1%— better than the provincial and national rates



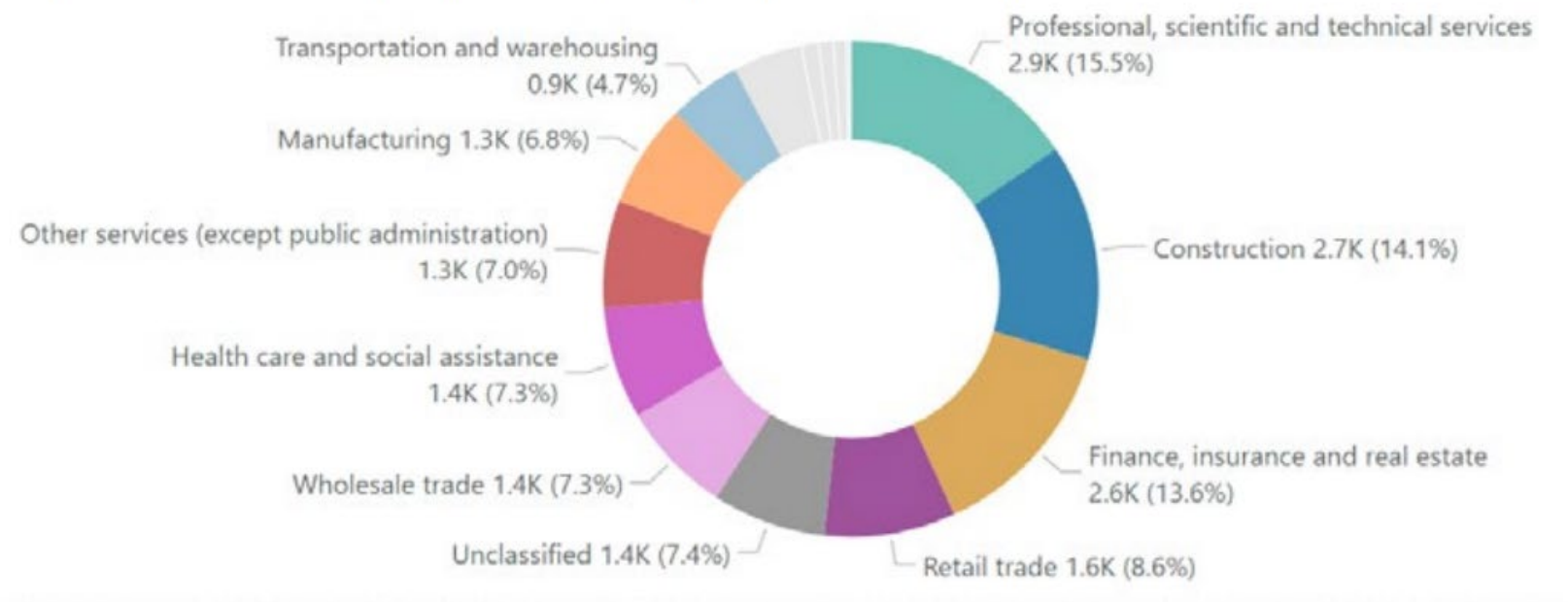
HIGHLY EDUCATED WORKFORCE:
70% post-secondary educated, ages 25 to 64

The Conference Board of Canada. 2021. Regional Municipality of York Economic Forecast, 2009-2020.
Statistics Canada. 2017. Vaughan, CY and Canada. Census, 2016.
Statistics Canada. 2021. Labour force characteristics, 2009-2020.

Vaughan By the Numbers

BUSINESS COUNTS - INDUSTRY SECTOR

Vaughan's diverse economy key to stability and post-pandemic recovery



2020 Business Count (with employees): **18,955**

2020 BUSINESS COUNT: EMPLOYMENT RANGE:

- Small Business (1-19): 87%
- Medium (20-99): 11%
- Large (100-499): 2%
- Very Large (500+): 0.16%

**SMALL BUSINESSES
DRIVE** Vaughan's economy

Statistics Canada, 2021. Canadian Business Counts, December 2020.



Vaughan's Innovation Economy

Connected to Talent

Within a one-hour drive:

Large and growing talent pool
3 million workers

Educated and in demand
68% post-secondary attainment
2.25 million post-secondary
educated workers

Robust pipeline
20 universities and 28 colleges
170,000+ university students
118,000+ college students
Niagara University in VMC

Diverse
160+ languages spoken



Embedded in Innovation

Part of Canada's second largest tech hub

York Region tech hub

4,300+ tech firms

60,000+ tech-based jobs

Ecosystem assets

ventureLAB

Incubators

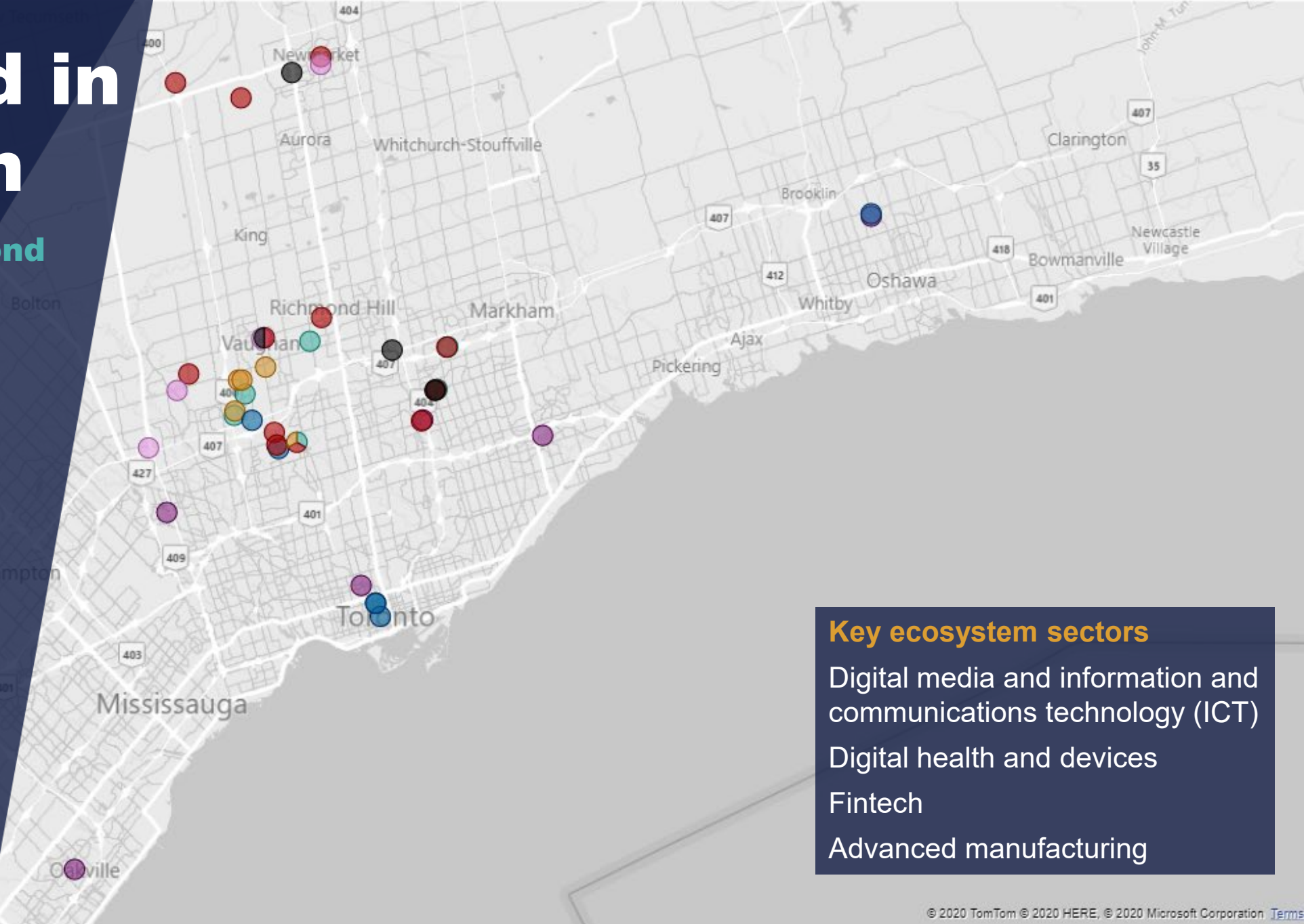
Innovation hubs

Campus-linked accelerators

Coworking and shared offices

48 colleges and universities*

**Including satellite campuses*



Key ecosystem sectors

Digital media and information and communications technology (ICT)

Digital health and devices

Fintech

Advanced manufacturing

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Innovation Corridor

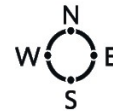
One-hour
radius



VAUGHAN
METROPOLITAN
CENTRE

YORK UNIVERSITY

DOWNSVIEW PARK



SPADINA

ST. GEORGE

QUEEN'S PARK

ST. PATRICK

OSGOODE

ST. ANDREW

UNION

Mackenzie Vaughan Hospital
Smart Hospital

VMC - Downtown Vaughan
Niagara University
VMC Mobility Hub
Rapid and local bus service
to York Region and Brampton

York University
Third-largest university in Canada

Downsview Aerospace Hub

University of Toronto
Largest university in Canada

MaRS Discovery District:
Research park and innovation hub comprised
of **7 million square feet** of facilities, including
hospitals, research institutes, business
incubators and venture capital organizations

- J Labs@Toronto
- MaRS Innovation
- Deep Genomics

University Health Network
Representing **8 hospital sites**
Ryerson University - DMZ
#1 university-based business incubator
in the world (UBI Global)

OCAD University

Financial Services Centre of Canada

- TSX: **Third-largest** stock exchange
in North America
- **World's largest exchange** for mining,
oil and gas, and cleantech companies

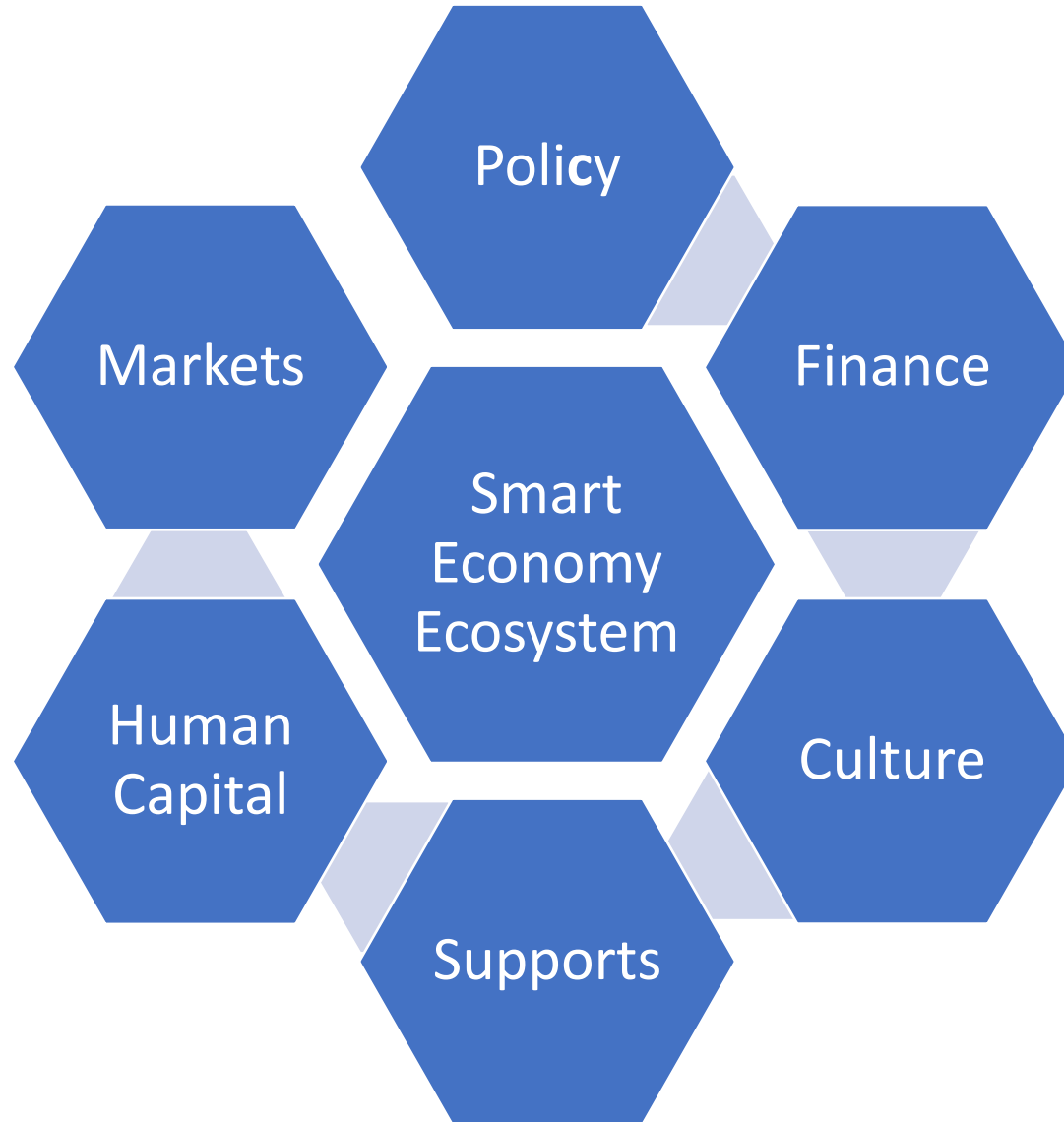
Union Station

- Canada's busiest transport facility
- Travel time from VMC: 45 minutes

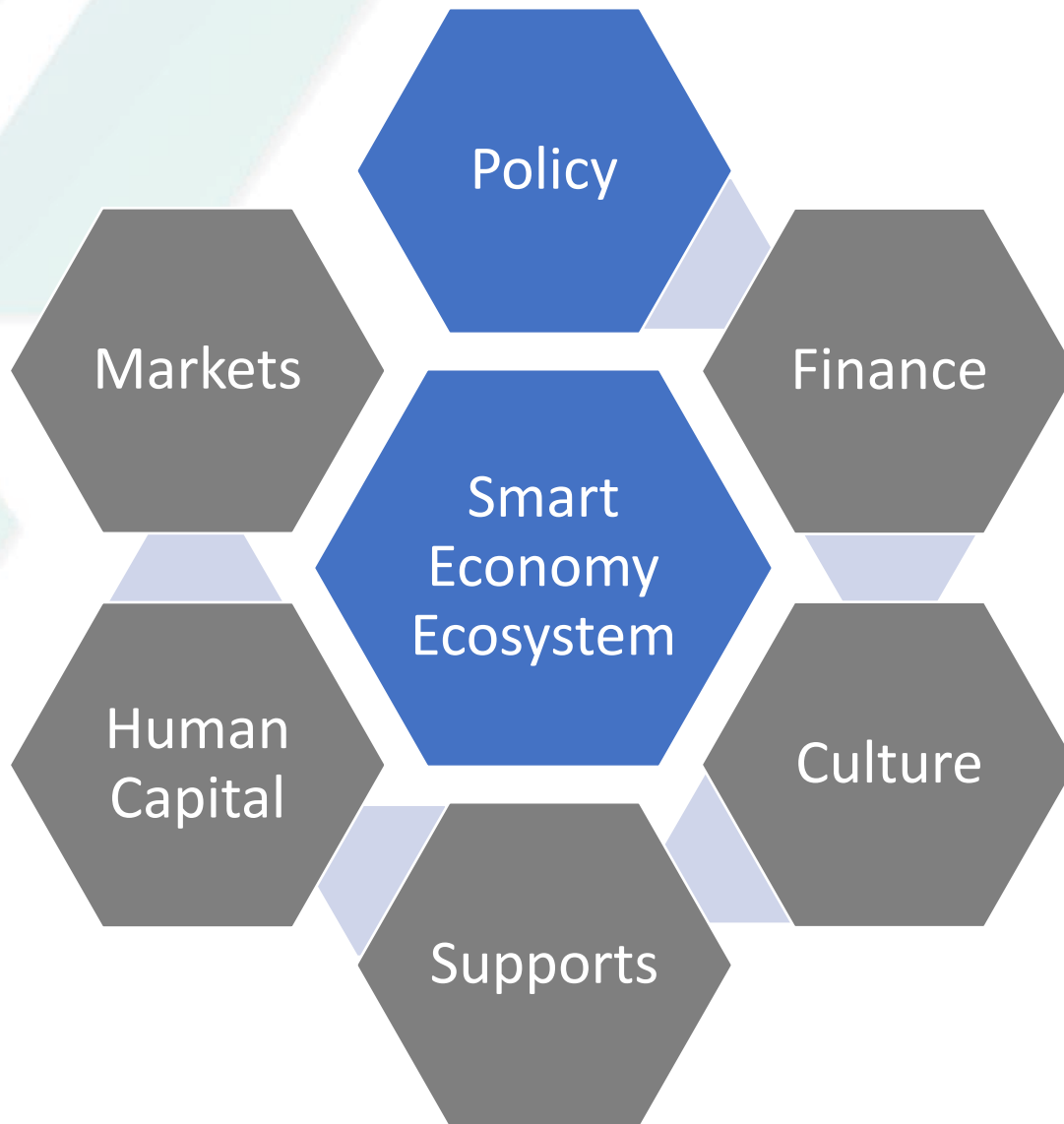
Entertainment district



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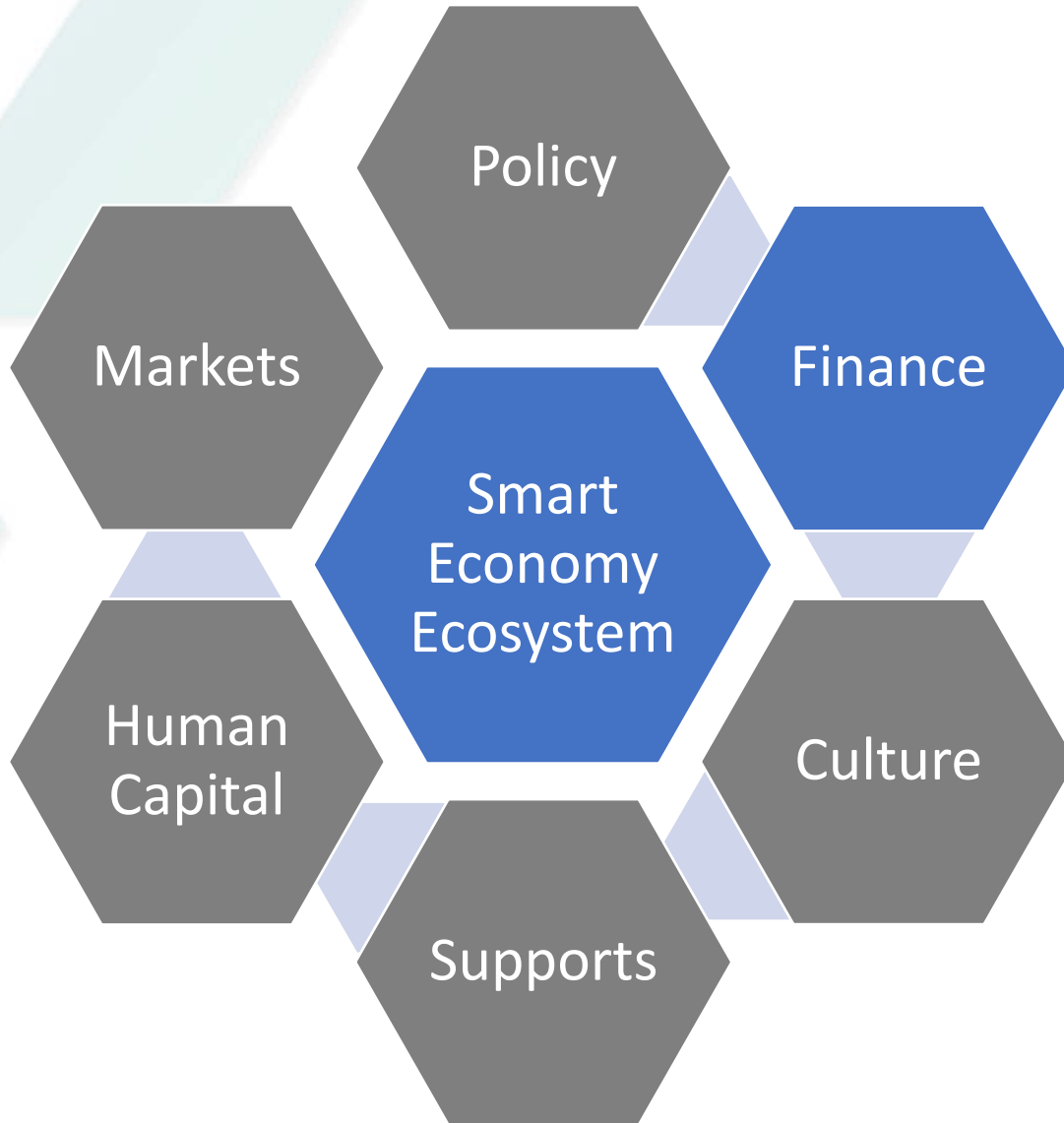


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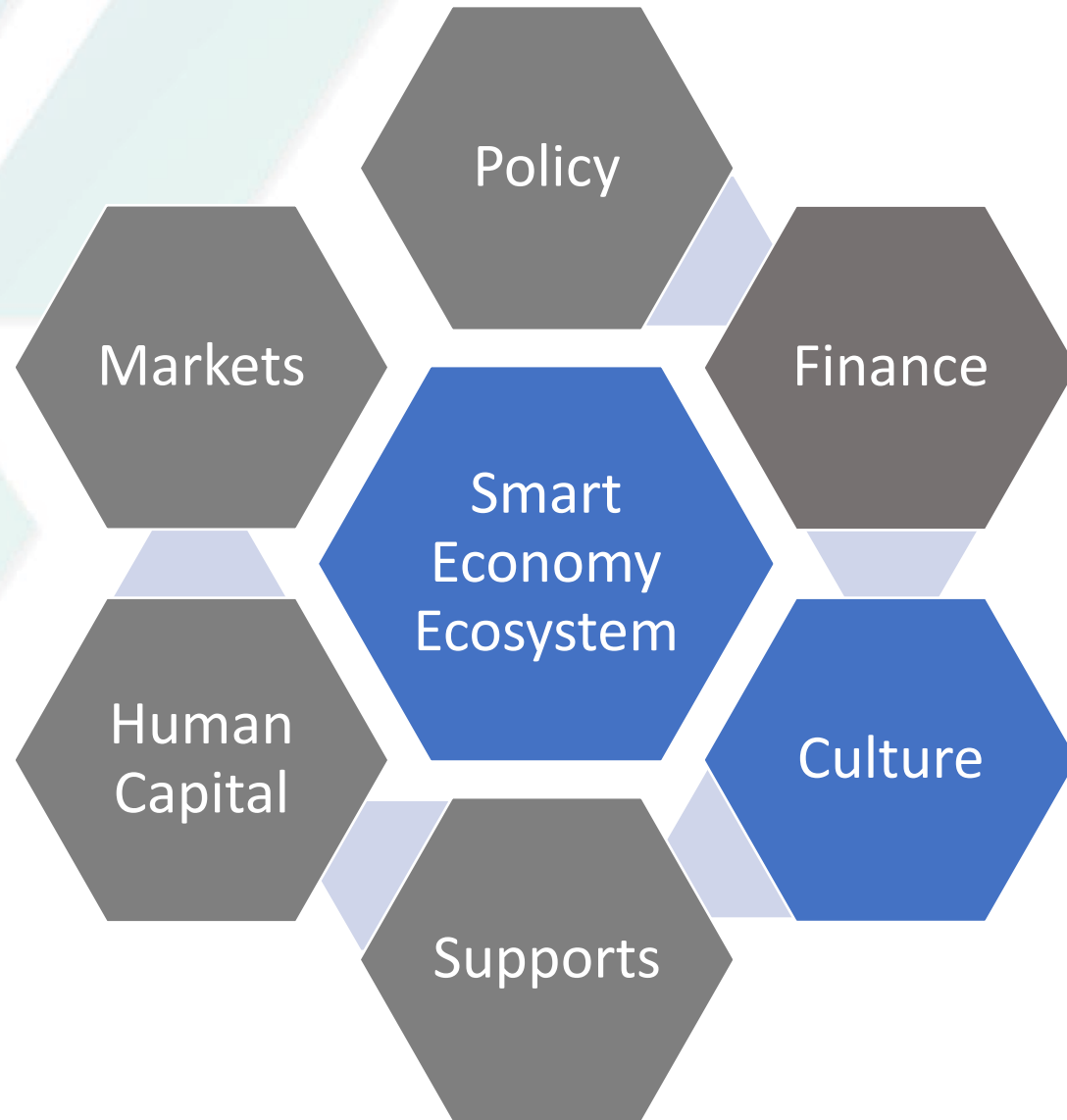
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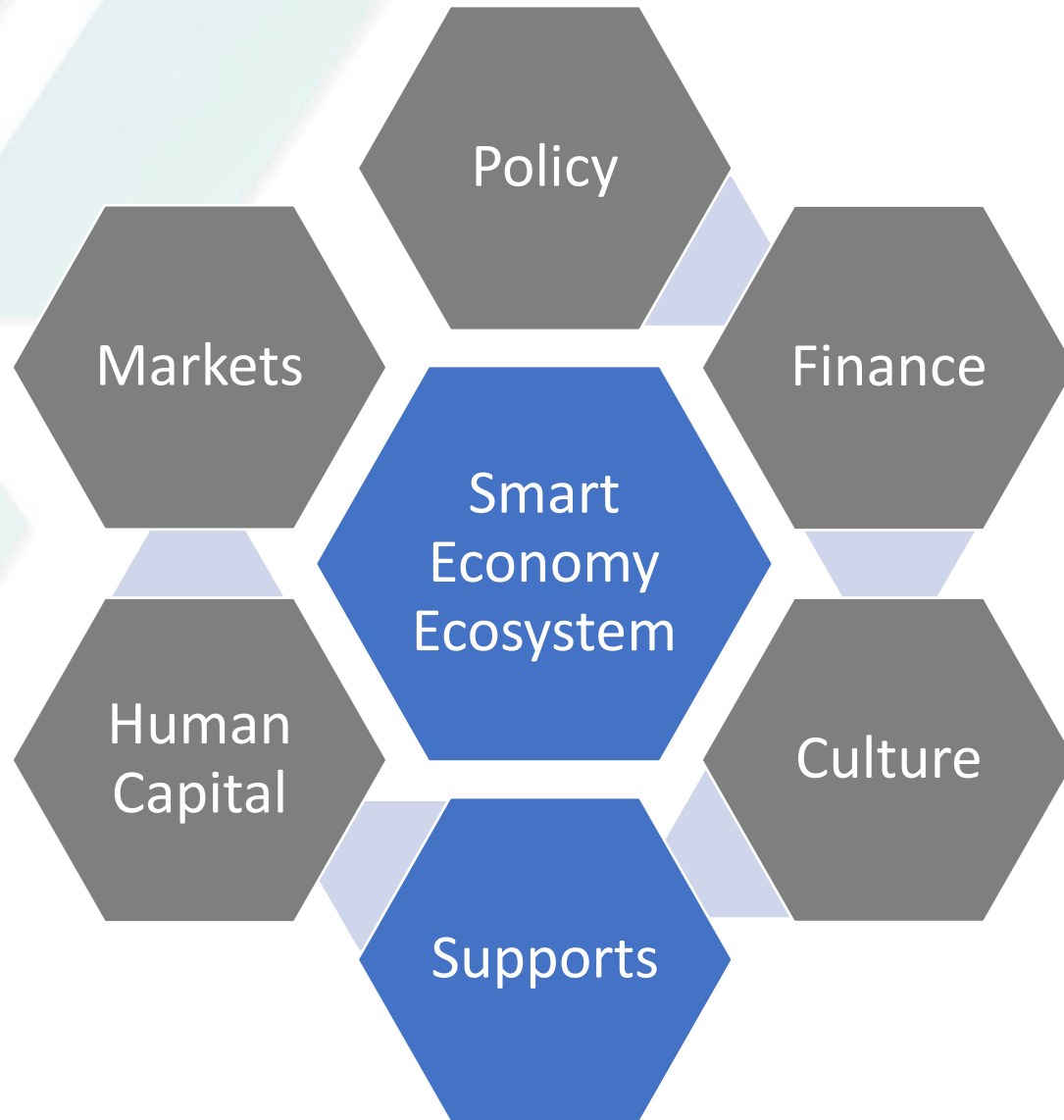
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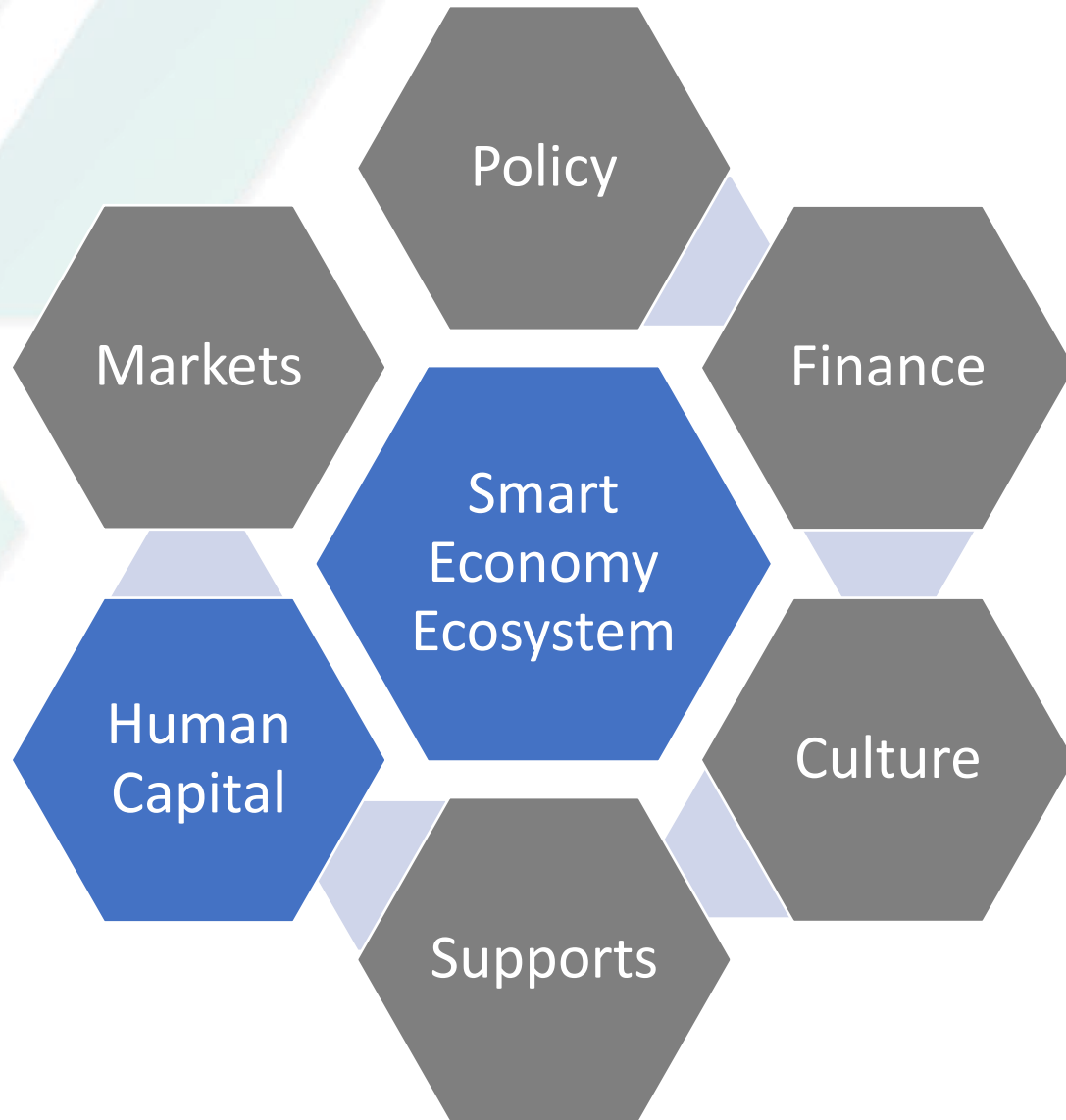
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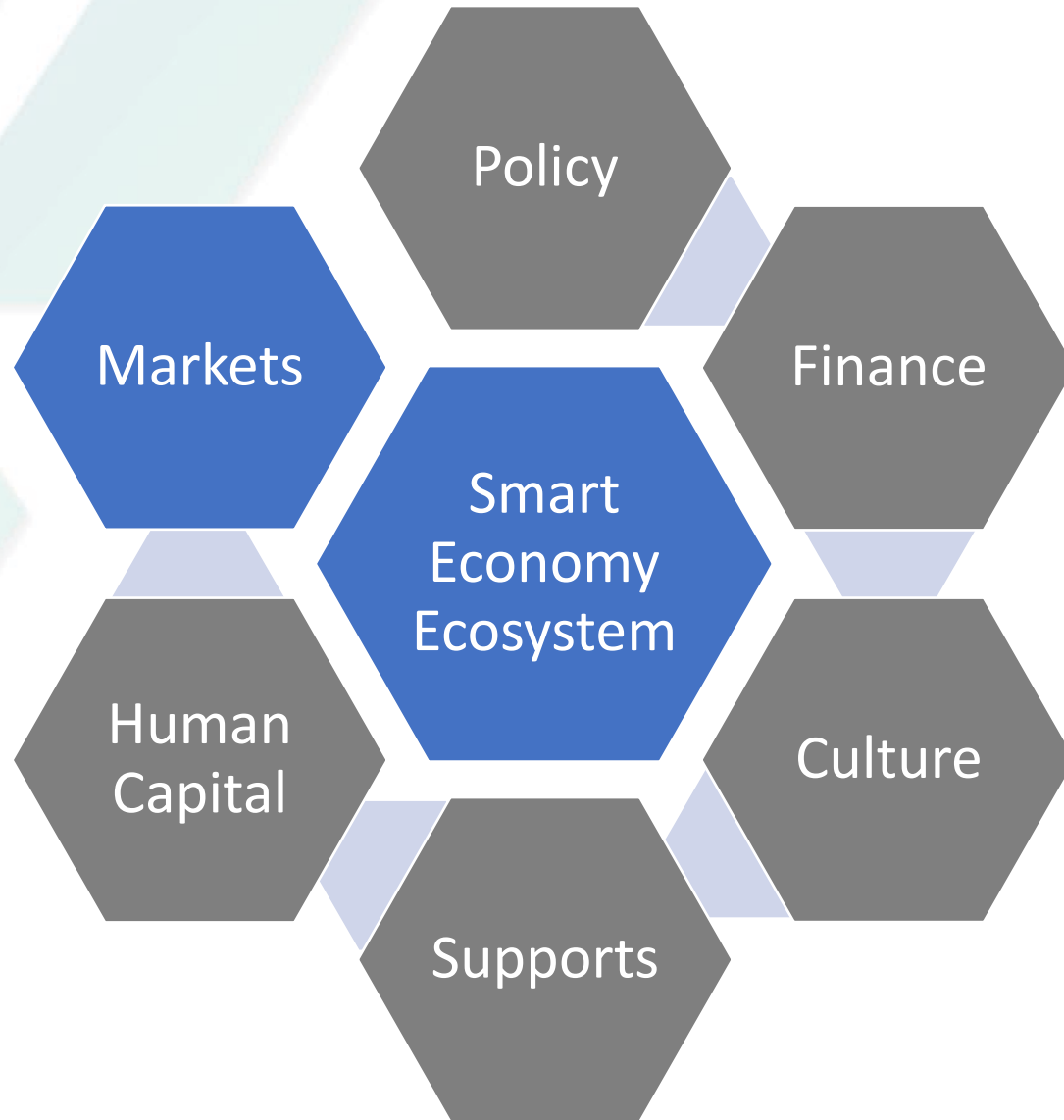
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Activate!Vaughan **Innovation Program**

Activate!Vaughan Innovation Program

Entrepreneurship program

Market-driven
Problem-based challenges
Connects startups and
industry leaders

Program Components

Co-creation
Pilot opportunities
Business advisory services
Accelerator programming
Mentorship
Funding opportunities

Challenges

Fall 2019: Sustainable
Transformation
Fall 2020: Health Innovation
Spring 2021: Smart City



Activate!Vaughan Innovation Program

Sustainable Transformation Challenge

Partners: Alectra, IKEA
Canada, Nature's Emporium

Solutions: clean tech and
clean energy, sustainable
food products, circular
economy

Health Innovation Challenge

Partners: Mackenzie Health,
SE Health & Sterling
Industries

Solutions: digital health,
electronic medical records,
medical devices





ACTIVATE! VAUGHAN

SMART CITY CHALLENGE

Pitch your smart city technology.
Collaborate and co-develop with industry leaders.

vaughanbusiness.ca/activate



Smart City Challenge

Challenge #1: Electric Mobility

Alectra & CoV Environmental Sustainability

Challenge #2: Route Optimization

CoV Public Works

Challenge #3: Age-friendly Communities

Social Isolation – Vaughan Public Libraries
Access to Healthcare – Mackenzie Health

Challenge #4: Intelligent Placemaking

CoV VMC Team



Smart City Challenge

What's next?

Successes

Scoping of authentic smart city challenges in Vaughan

Sophistication of participating scale-ups

Interest from partners

Opportunities

Engage new partners from other industries

Enhance funding for solutions

Develop partnership framework required to enable full-scale pilots



vaughan

ECONOMIC & CULTURAL
DEVELOPMENT



Thank you.
Questions?



Smart Economy **Discussion**

Discussion Questions

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