

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

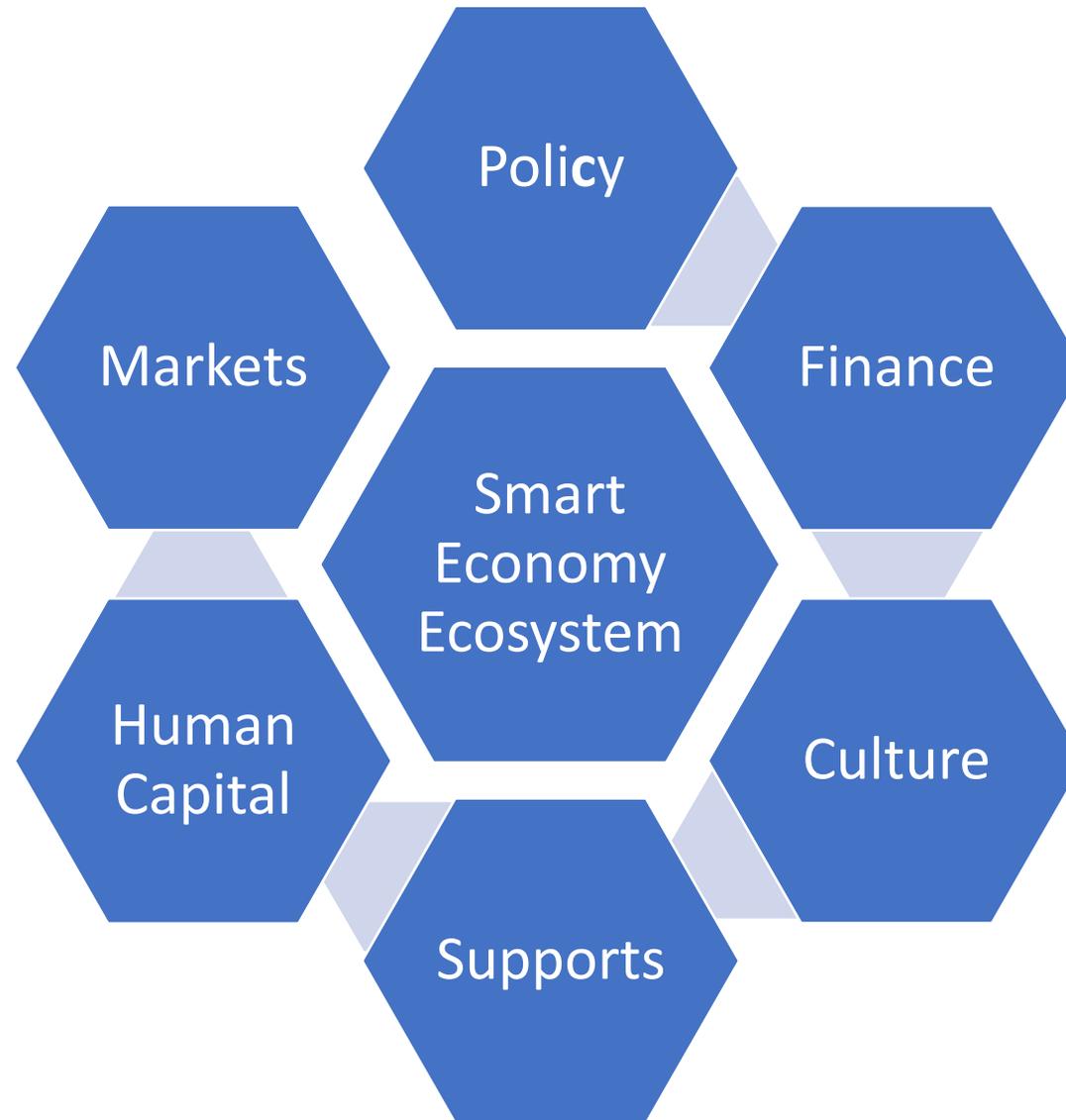
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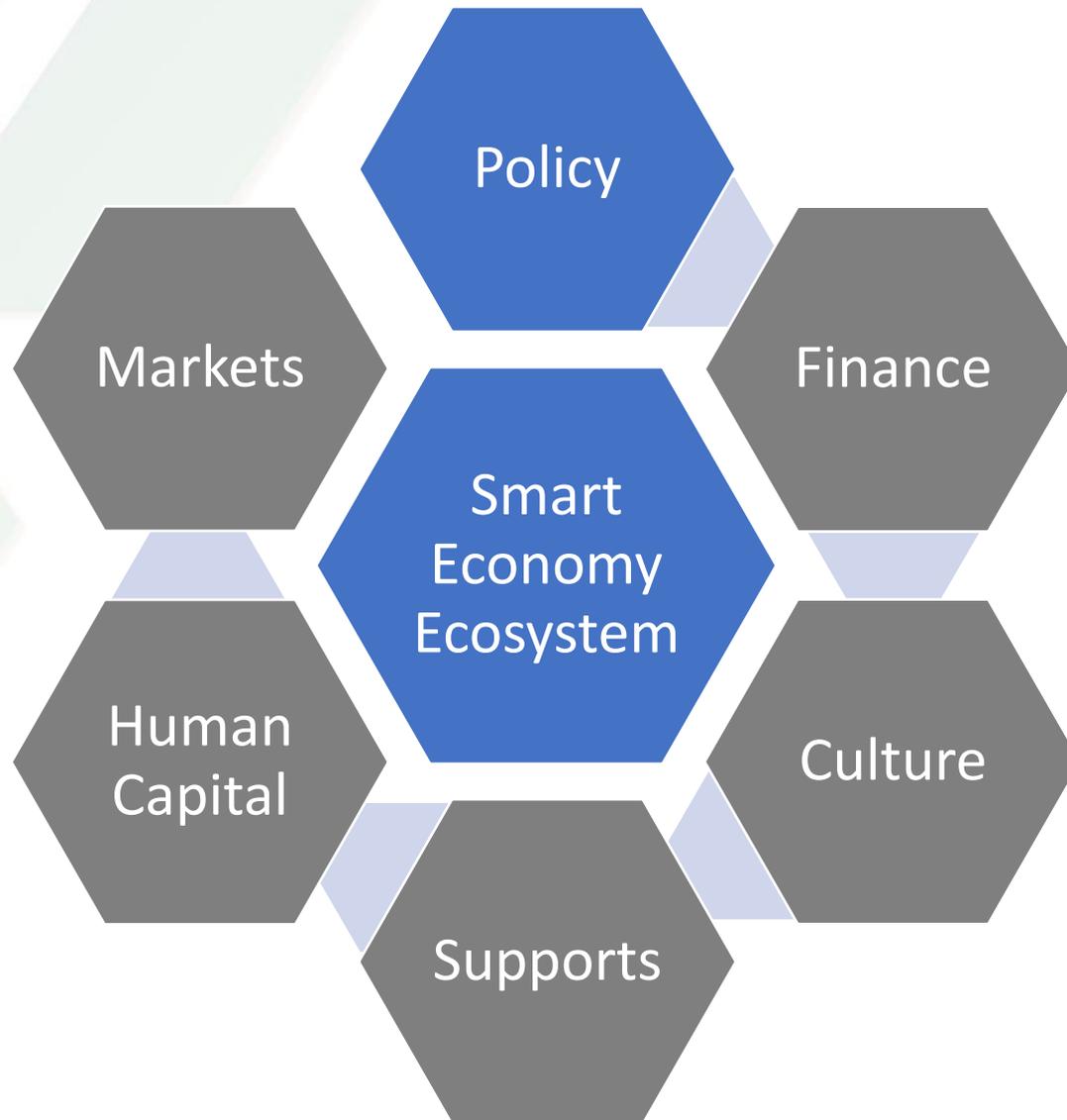
Please note there may be further Communications.

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>

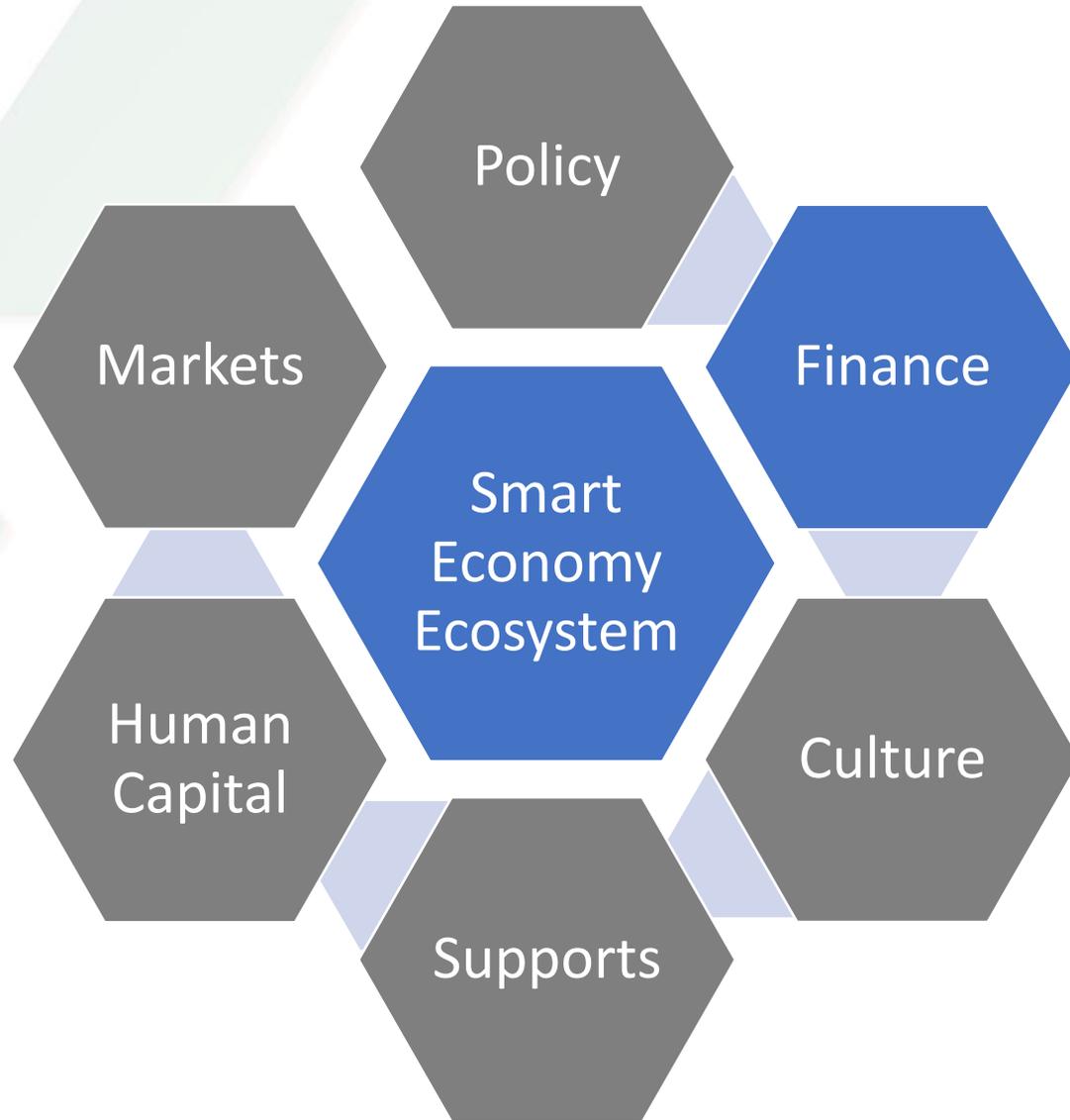


Leadership

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

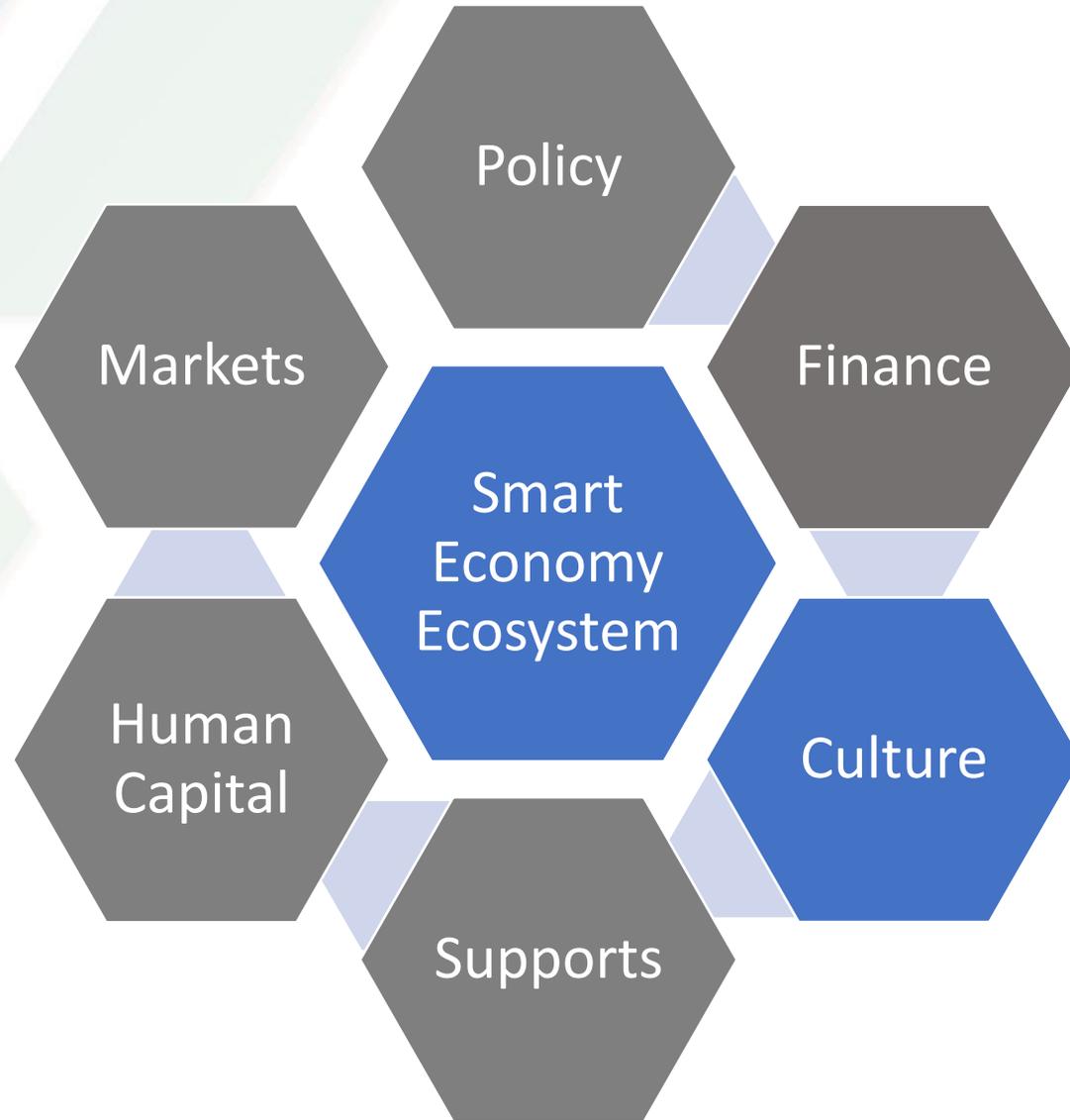
Government

- 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



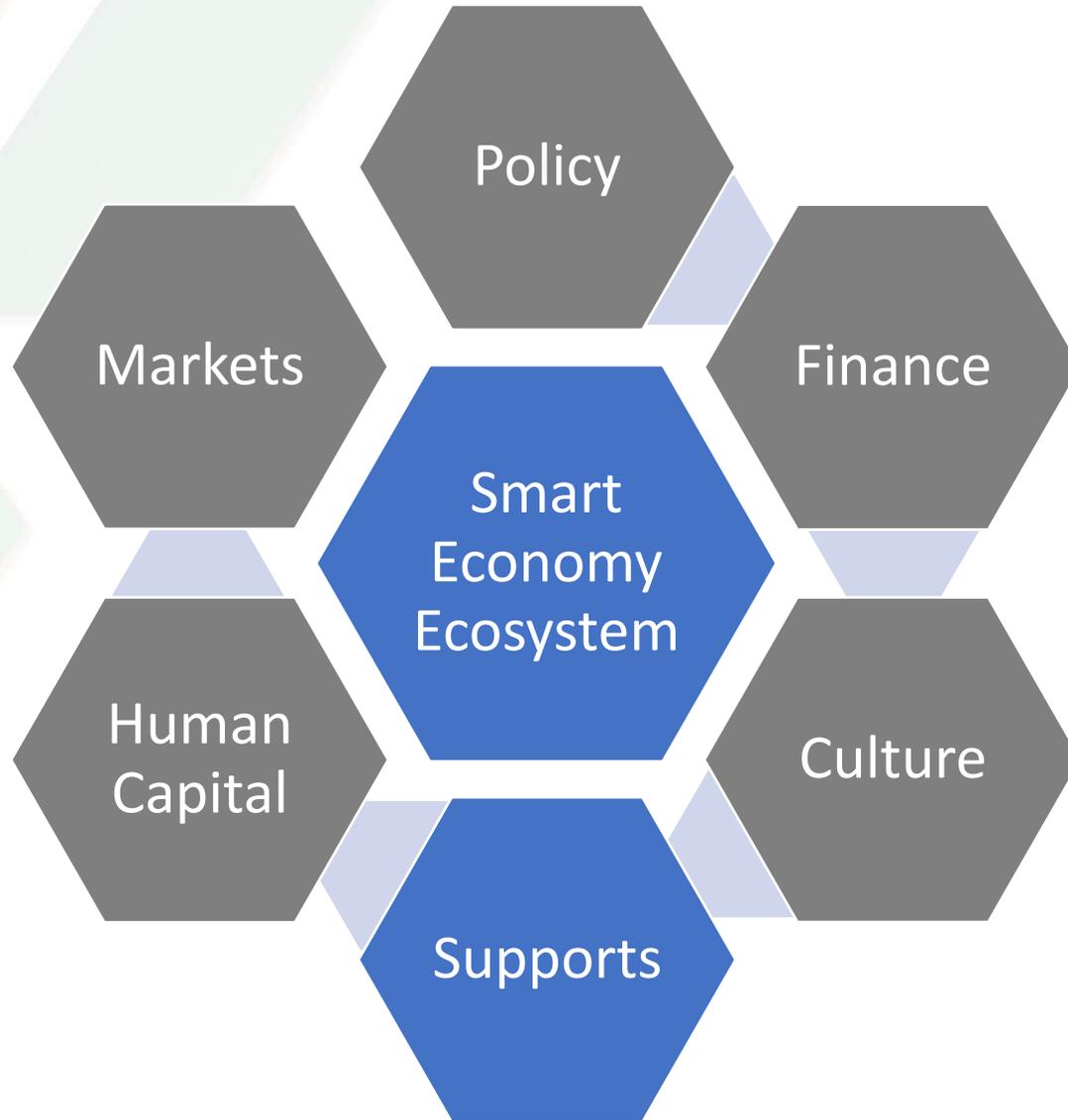
Financial Capital

- 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

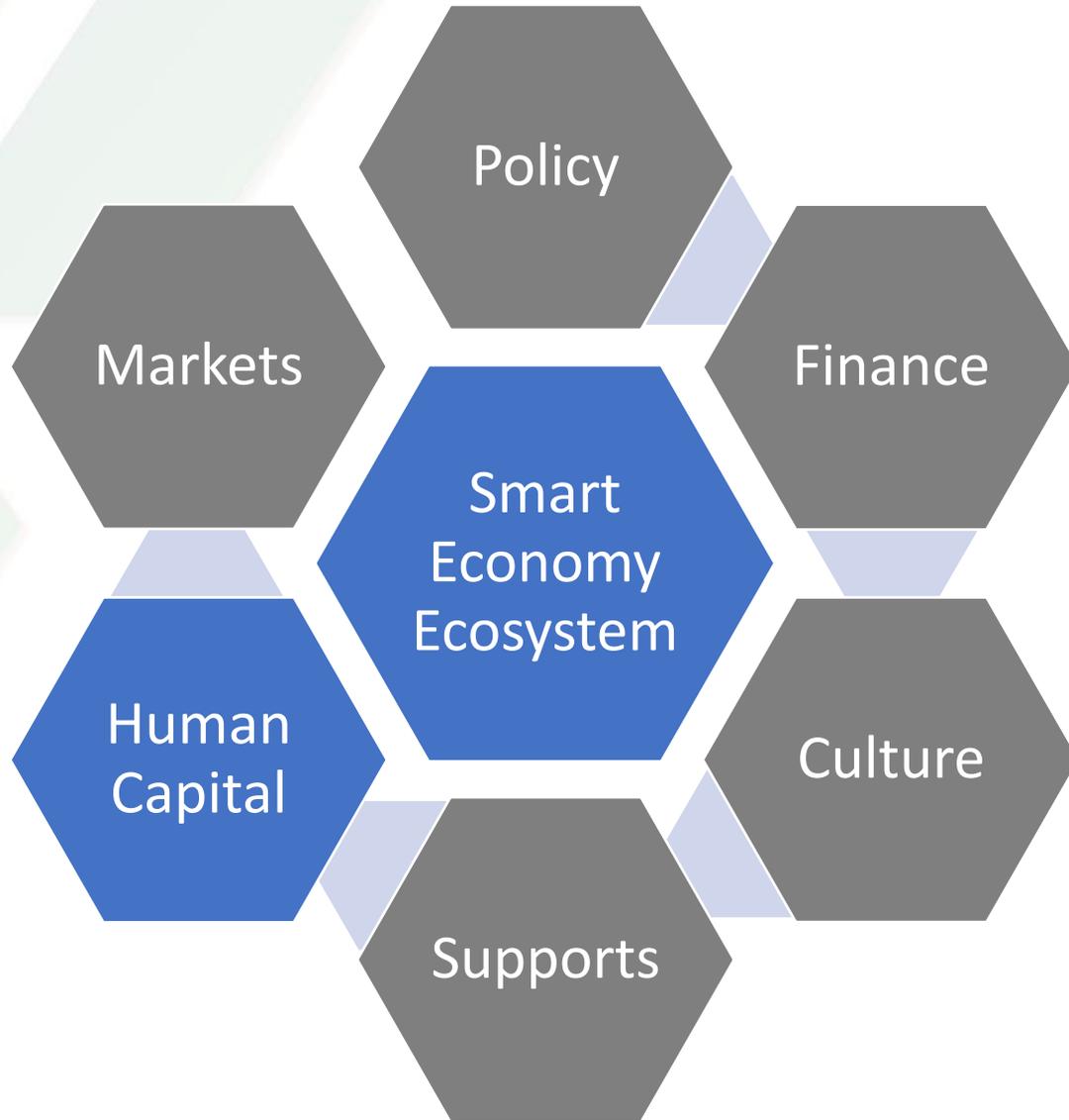
- Telecommunications
- Transportation & logistics
- Energy
- Zones, incubators, co-working, clusters

Support Professions

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

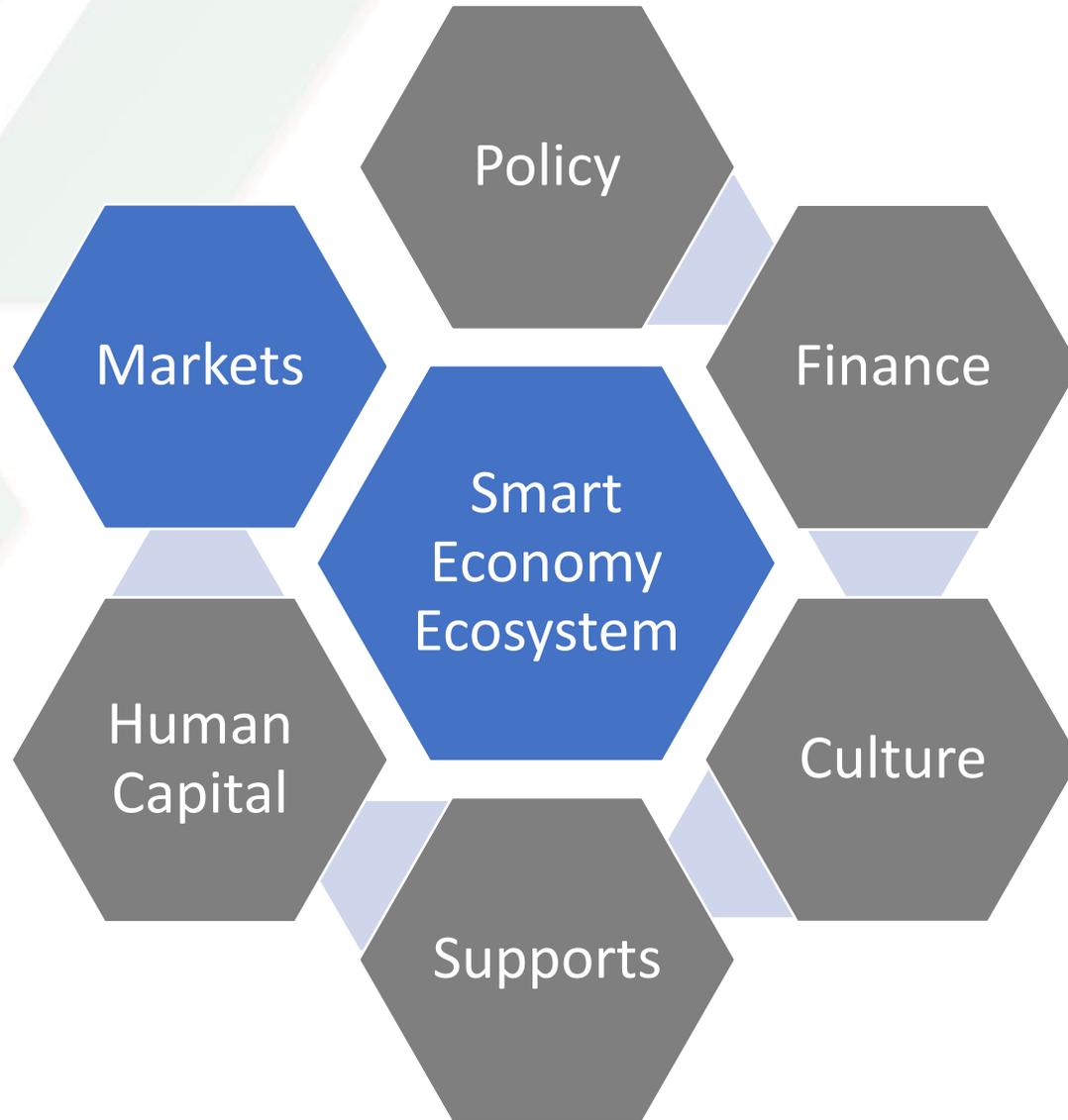
Non-governmental institutions

- 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

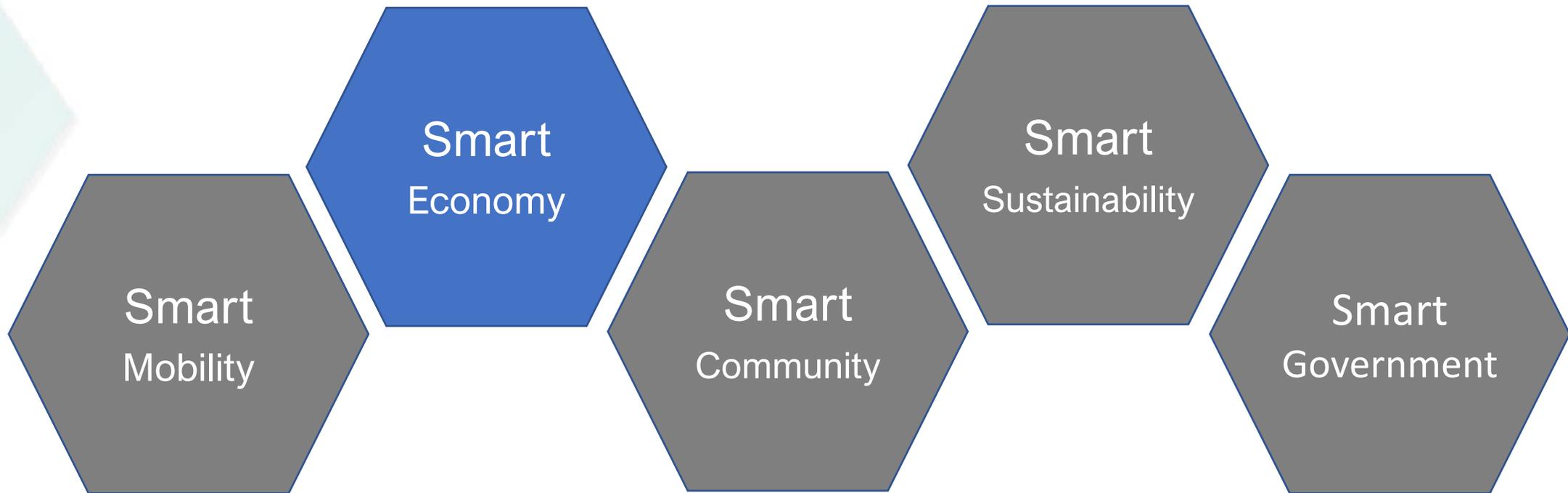
Discussion Questions

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?

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



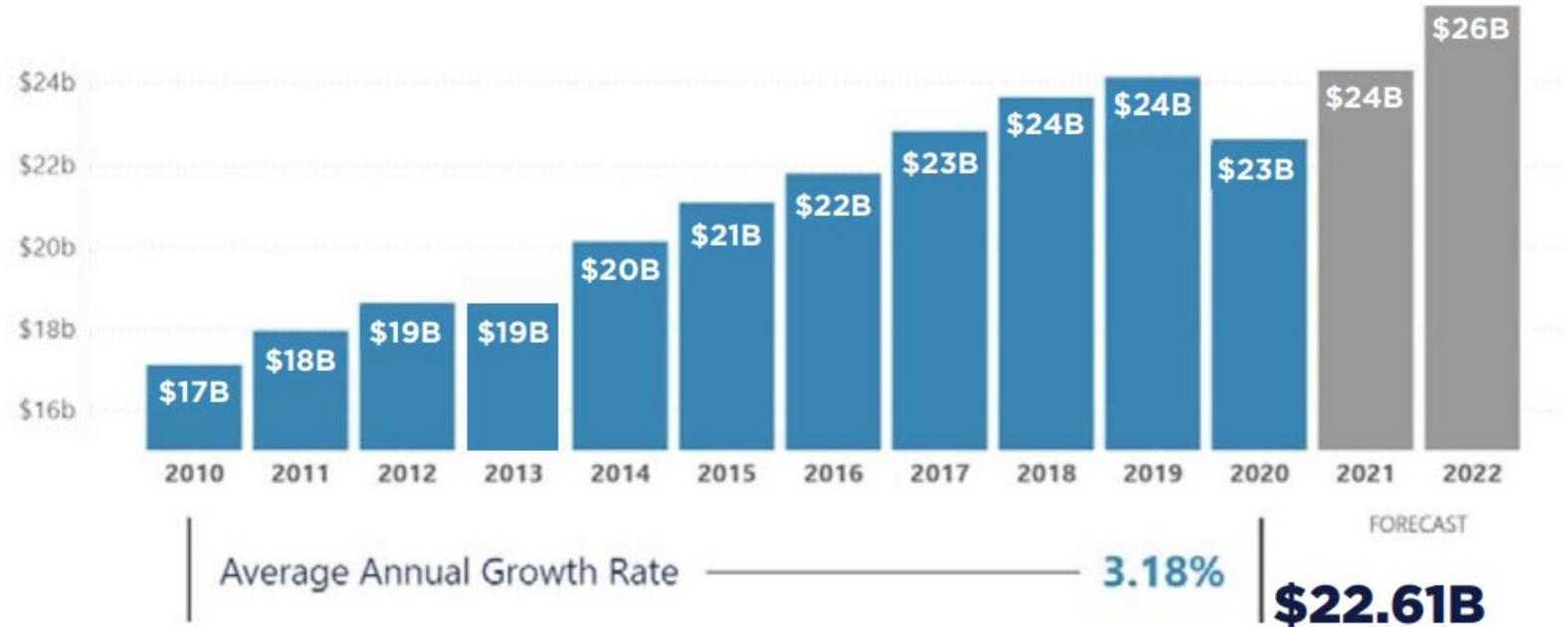
Vaughan

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.

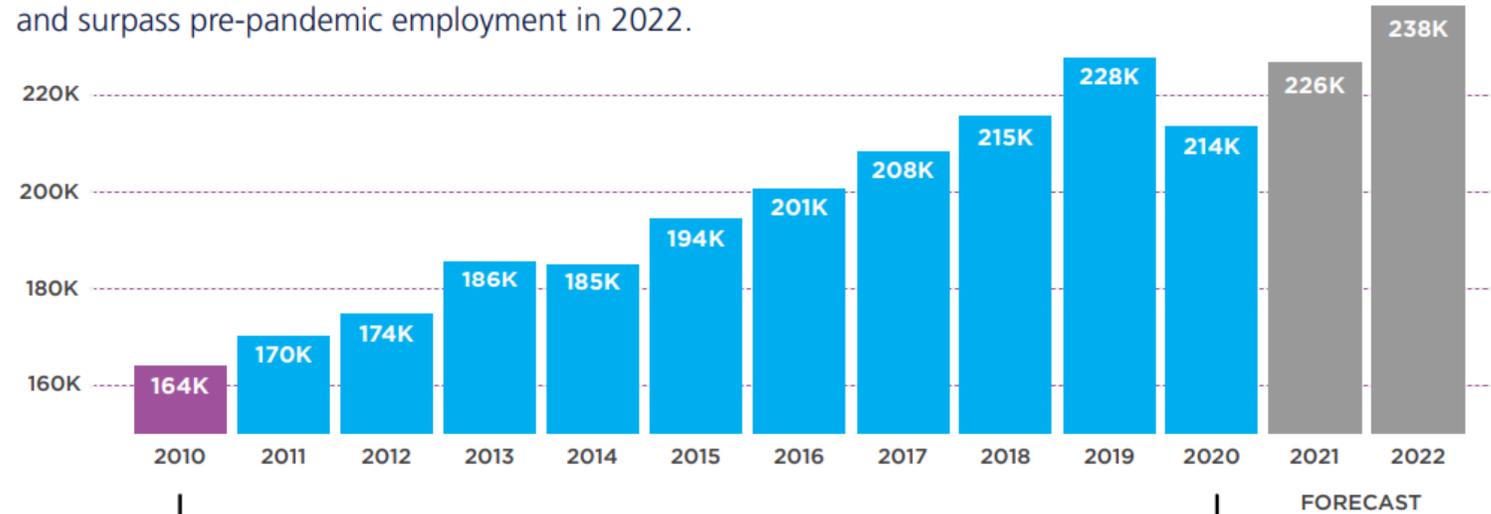
\$22.61B
2020 Real GDP
(chained in 2012 CAD)

*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.



Average Annual Growth Rate **2.74%**

\$213.5K
2020 Total Employment

Employment growth rate more than double the provincial and national rates

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



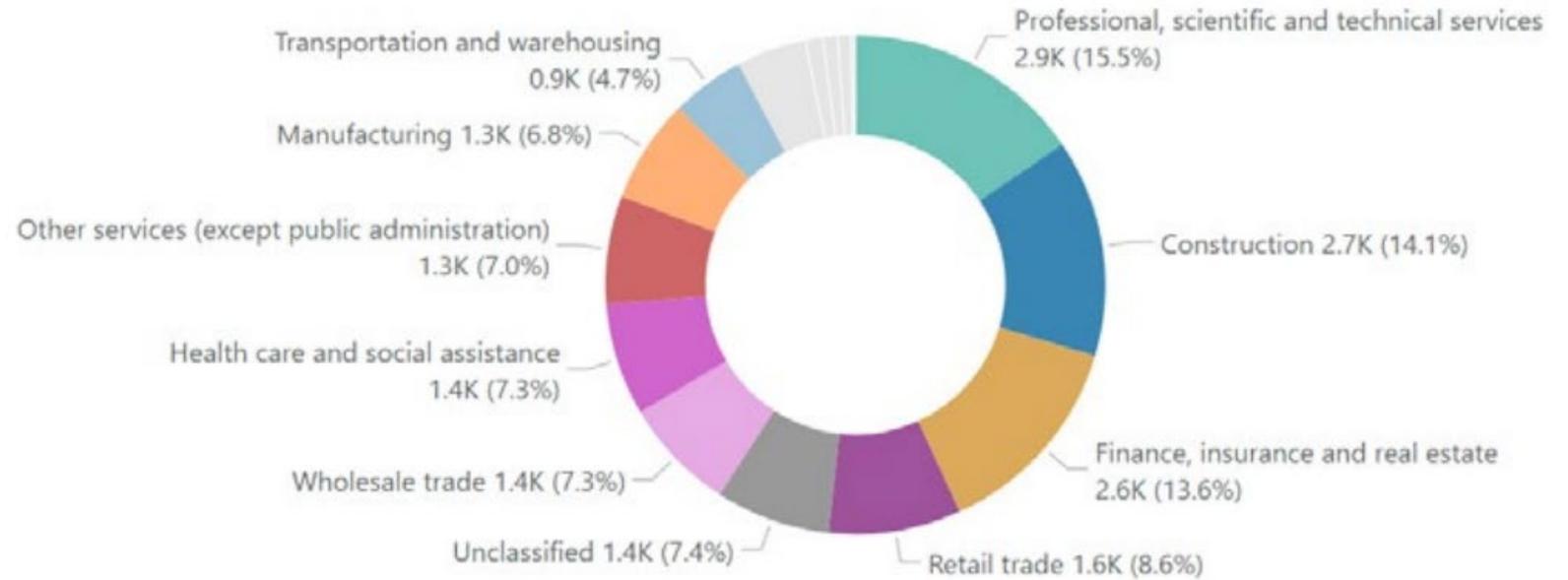
HIGHLY EDUCATED WORKFORCE: 70% post-secondary educated, ages 25 to 64

*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*

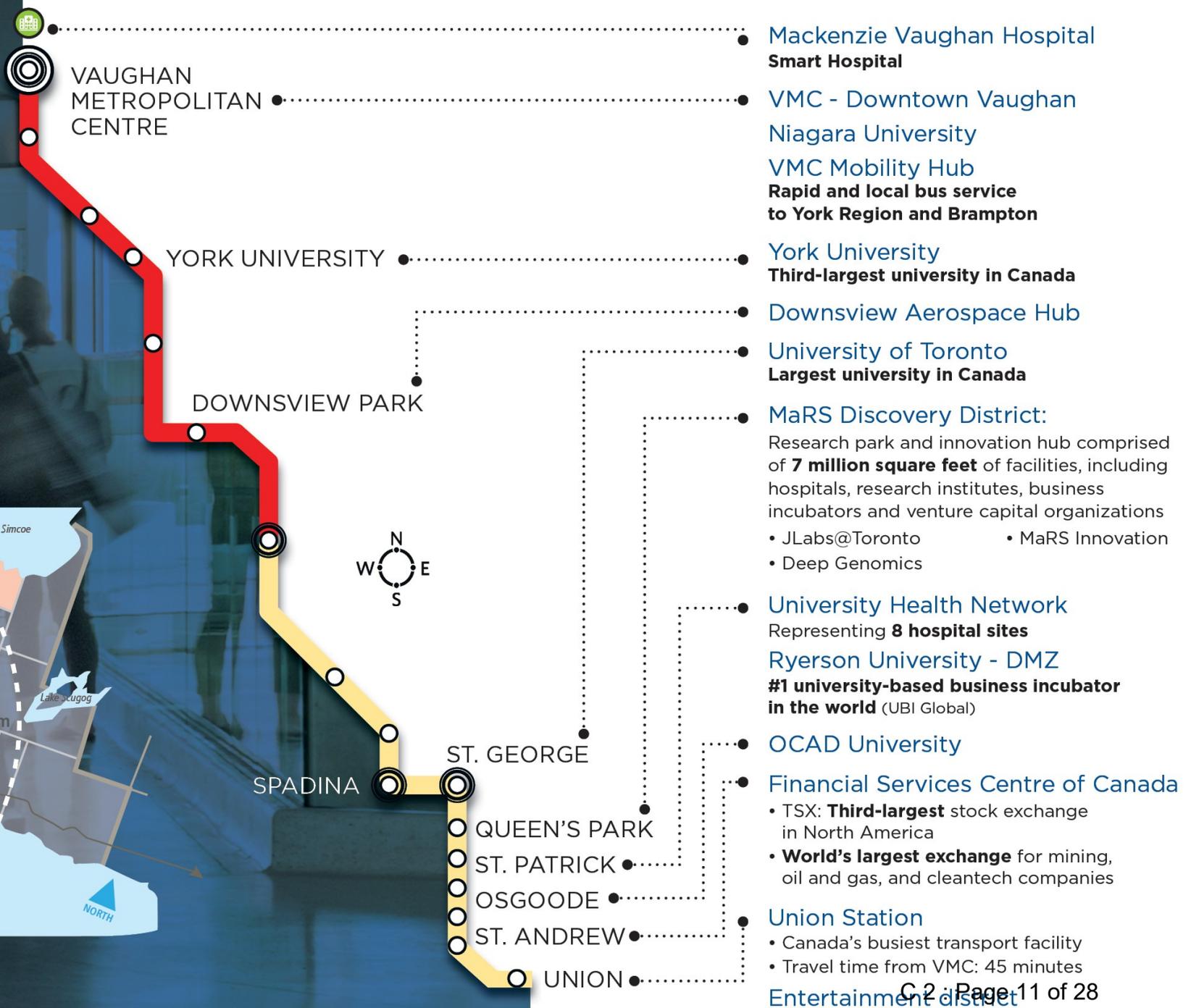
*Including satellite campuses



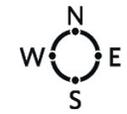
Key ecosystem sectors

- Digital media and information and communications technology (ICT)
- Digital health and devices
- Fintech
- Advanced manufacturing

Innovation Corridor

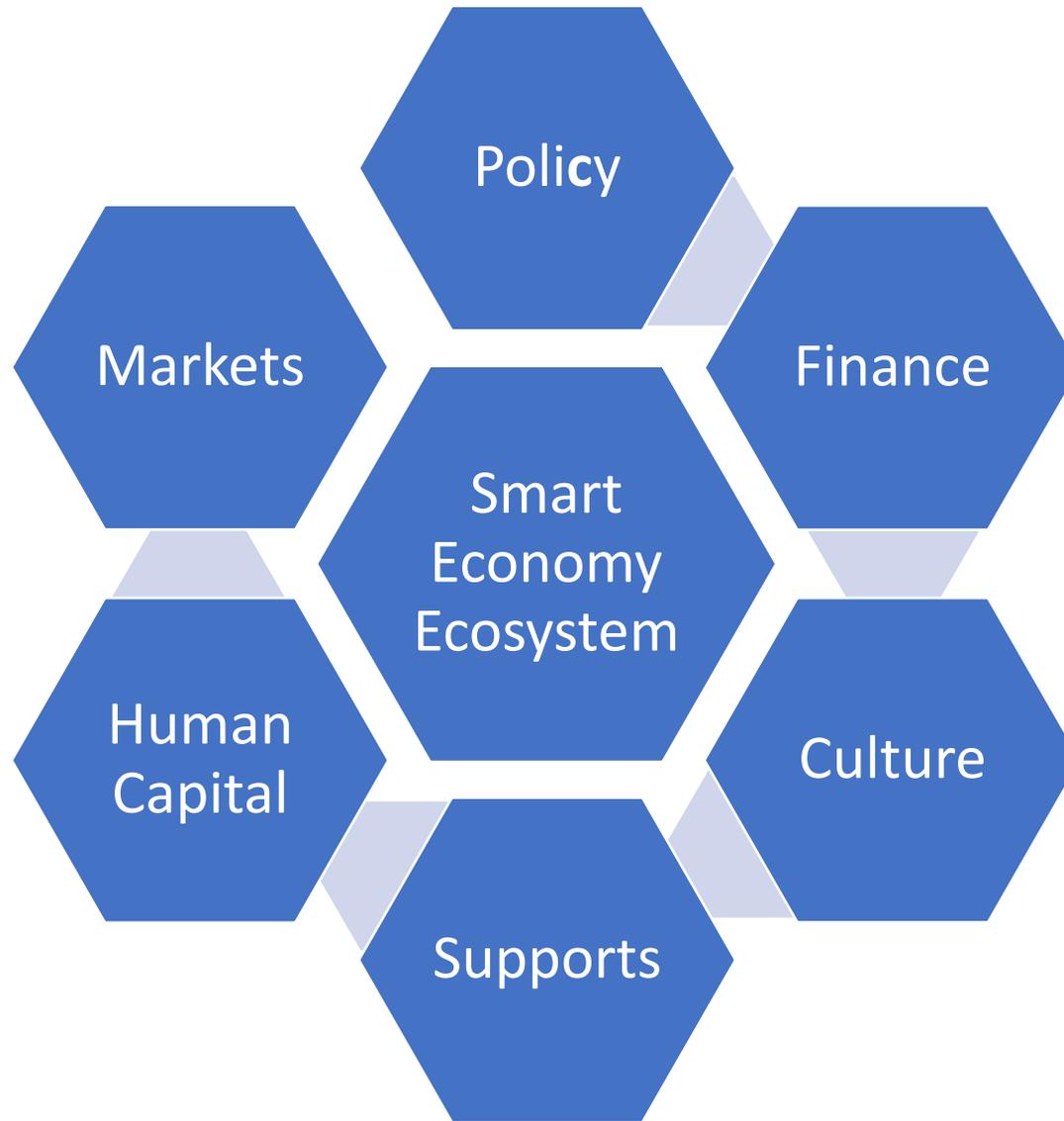


One-hour radius

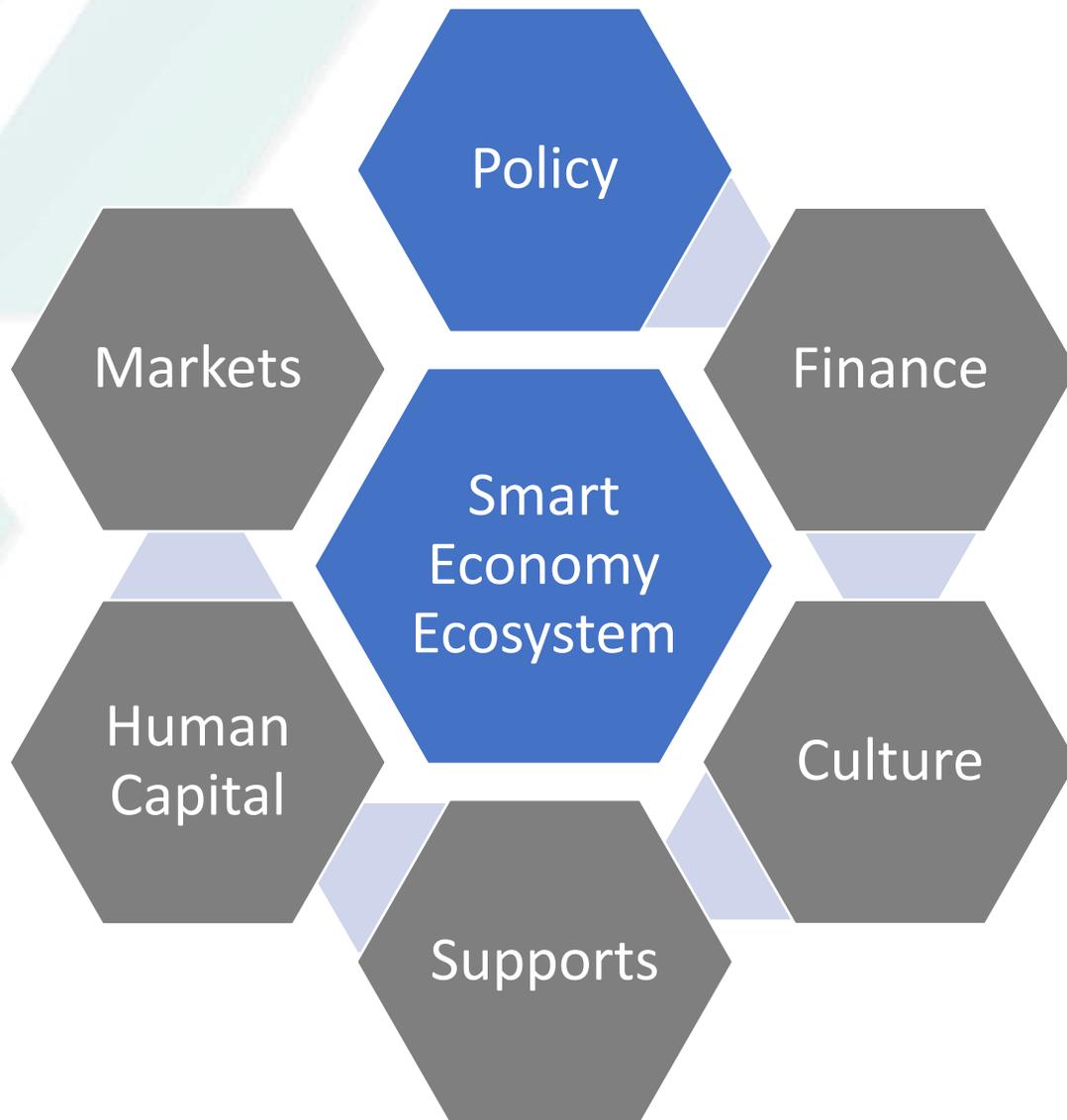




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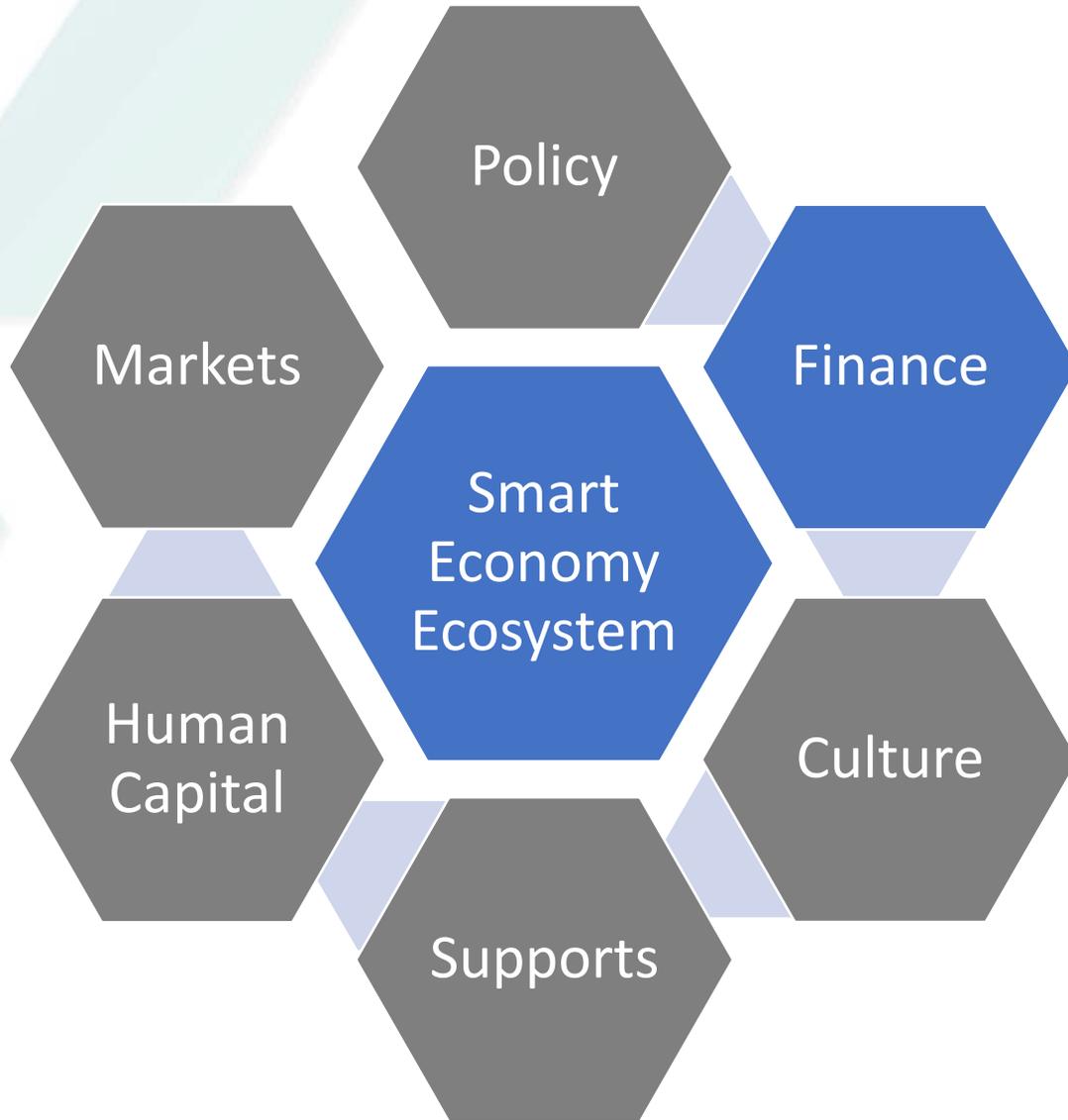


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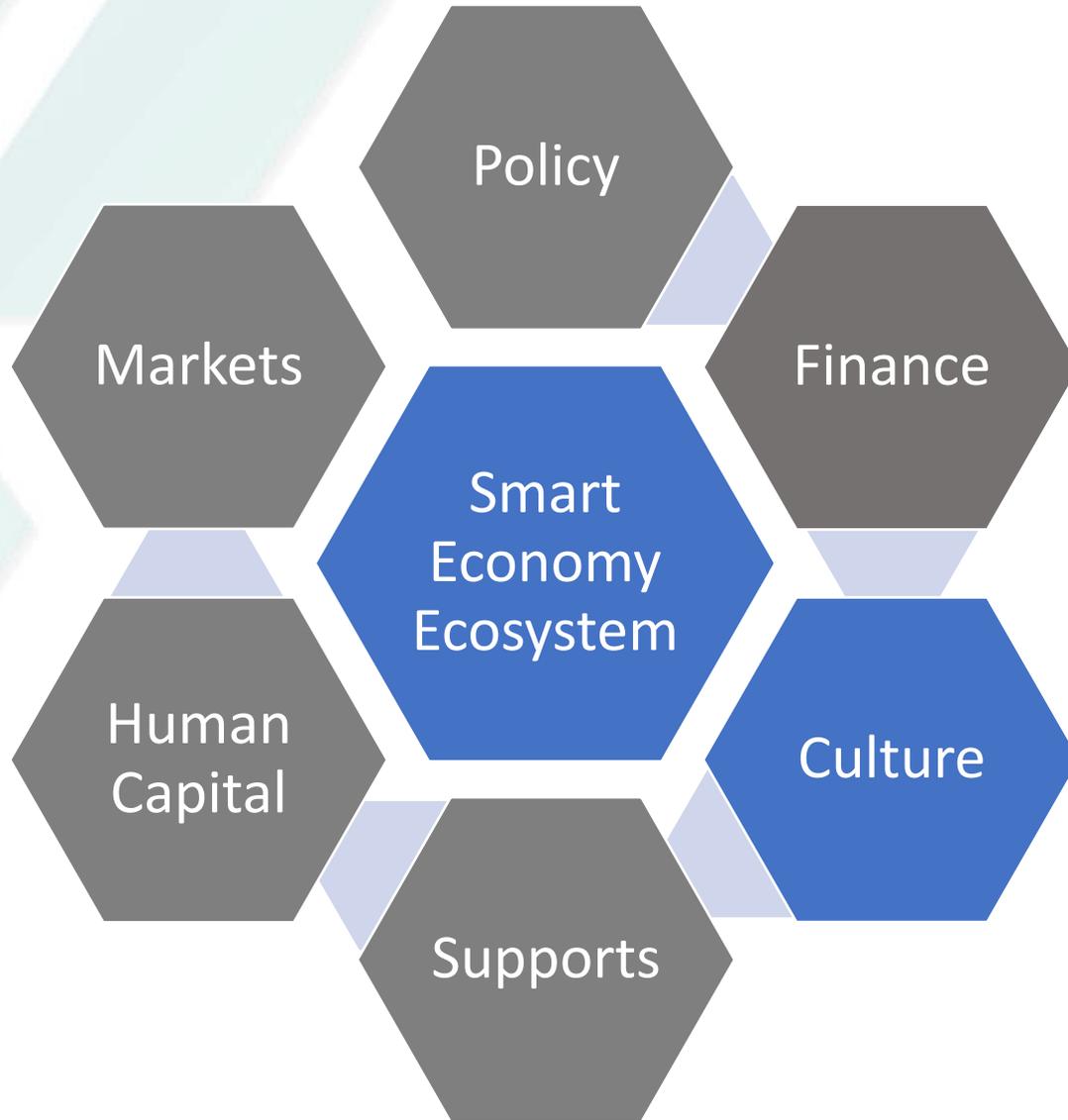
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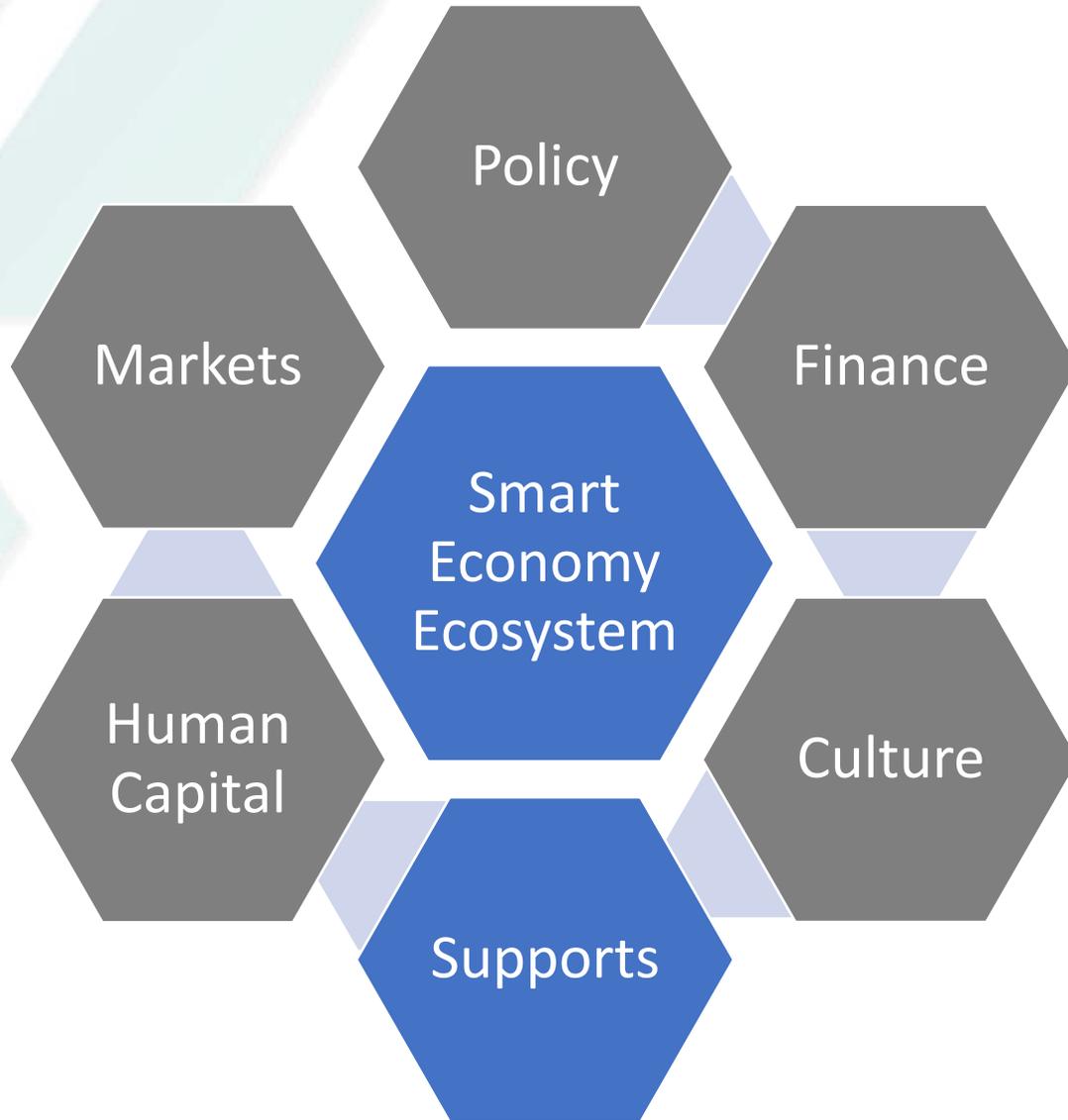
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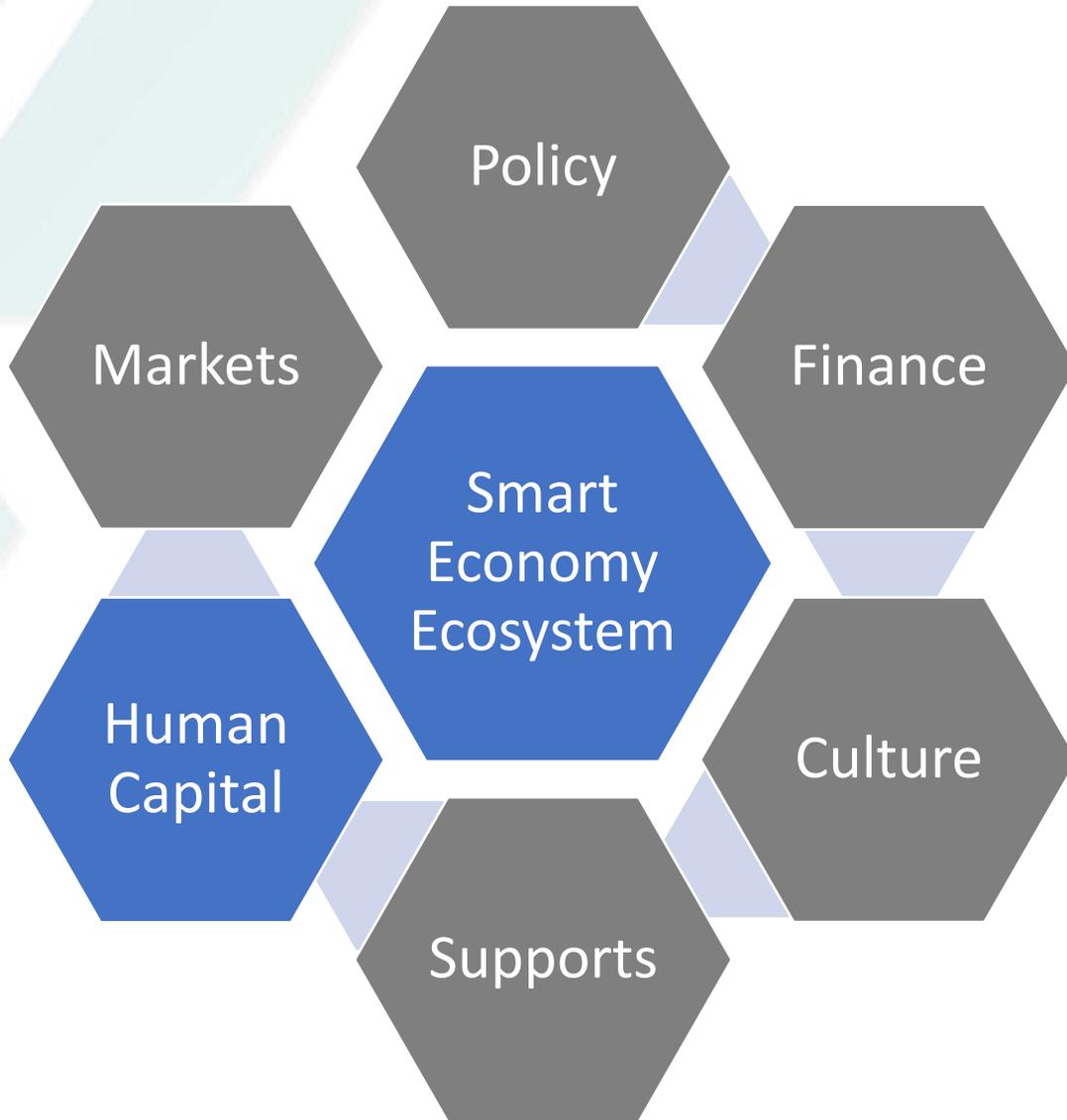
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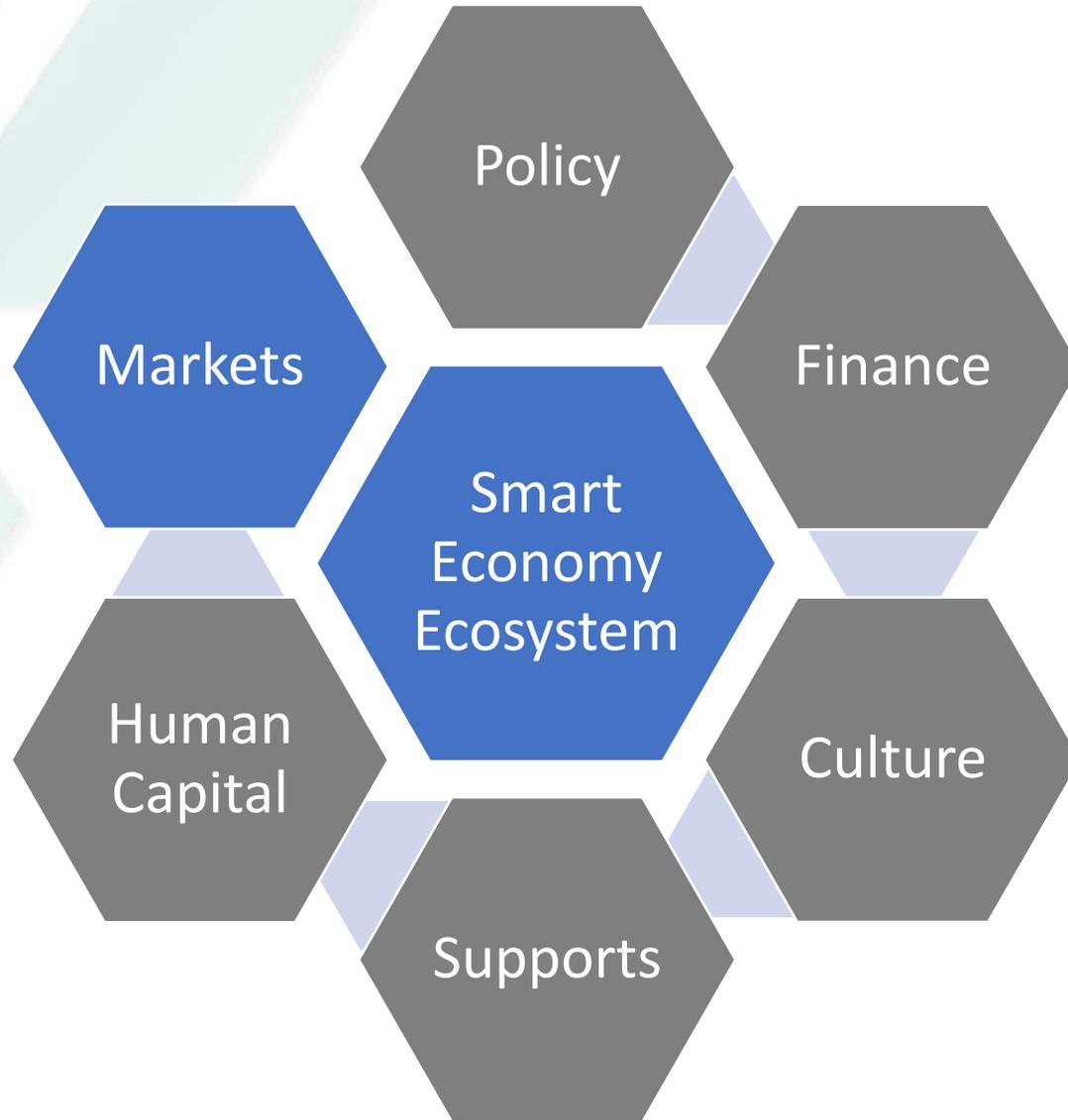
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Activate!Vaughan Innovation Program

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



ECONOMIC & CULTURAL
DEVELOPMENT

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

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