

From San Francisco Bay Area To The Greater Bay Area

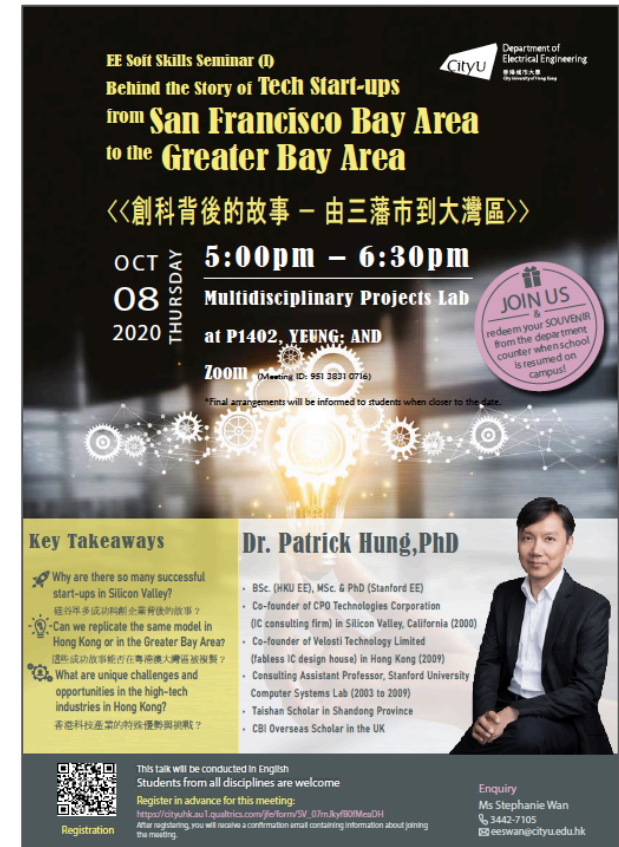
從「三藩市灣區」到「粵港澳大灣區」
點滴分享

Dr. Patrick Hung

8 October 2020

Overview

- Background
- Some Stanford Start-ups
- Silicon Valley Myth vs Facts
- Replicating SF Bay Area?
- Challenges & Opportunities
- Positioning of HK



EE Soft Skills Seminar (I)
Behind the Story of Tech Start-ups
from San Francisco Bay Area
to the Greater Bay Area

Department of Electrical Engineering
CityU

《創科背後的故事 – 由三藩市到大灣區》

OCT 08 2020 THURSDAY
5:00pm – 6:30pm
Multidisciplinary Projects Lab
at P1402, YEUNG AND
Zoom (Meeting ID: 951 2831 0716)

JOIN US
redeem your SOUVENIR
from the department
counter when school
is resumed on
campus!

*Final arrangements will be informed to students when closer to the date.

Key Takeaways

- Why are there so many successful start-ups in Silicon Valley?
為何有那么多成功創科企業背後的故事?
- Can we replicate the same model in Hong Kong or in the Greater Bay Area?
這些成功創科企業在香港或大灣區能複製?
- What are unique challenges and opportunities in the high-tech industries in Hong Kong?
香港科技產業的獨特挑戰與機遇?

Dr. Patrick Hung, PhD

- BSc. (HKU EE), MSc. & PhD (Stanford EE)
- Co-founder of CPQ Technologies Corporation (IC consulting firm) in Silicon Valley, California (2000)
- Co-founder of Velosti Technology Limited (featureless IC design house) in Hong Kong (2009)
- Consulting Assistant Professor, Stanford University Computer Systems Lab (2003 to 2009)
- Taishan Scholar in Shandong Province
- CBI Overseas Scholar in the UK

This talk will be conducted in English
Students from all disciplines are welcome

Register in advance for this meeting:
https://cityuhk.as1.qualtrics.com/jvform/DV_07m3kyf000Meu0H
After registering, you will receive a confirmation email containing information about joining the meeting.

Enquiry
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Registration

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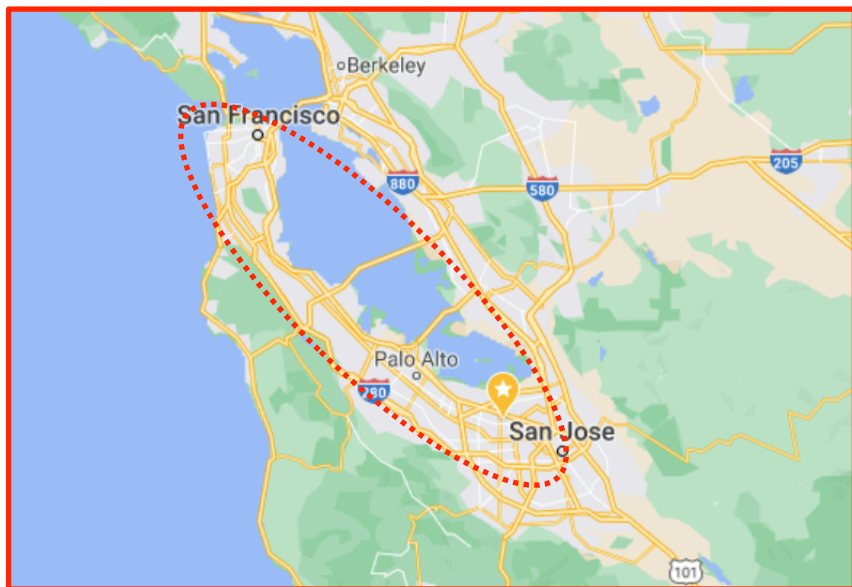
Personal Background

- Undergraduate (EE) in Hong Kong
- Stanford University from 1995 to 2009
 - MSc, PhD (EE)
 - Consulting Faculty (2004-2009)
- Experiences in USA, UK, China, Japan, Hong Kong
 - Start-up & Fortune 500 Experiences

This Talk

- Sharing some Start-up & Working Experiences in Different Countries
- Exploring High-Tech Opportunities in Hong Kong

San Francisco Bay Area



- | | |
|----------------------------|---------------------|
| • Municipality: | 9 Counties |
| • Population: | 7.7M |
| • Average Engineer Salary: | US\$145K |
| • GDP/Capita: | US\$104,166 |
| • Gender Ratio (Singles): | 1.14 (M) : 1.00 (F) |

The Greater Bay Area



- Municipality:
- Area:
- Population:
- Economy:
- GDP/capita:

11 Major Cities
3x San Francisco Bay Area
66M
US\$1.3T (12% of China)
US\$20,255 (20% SF Bay Area)

The Greater Bay Area Cities

- Anchor Cities
 - Hong Kong (香港) - Global Finance
 - Shenzhen (深圳) - Innovation
 - Macau (澳門) - Entertainment
 - Guangzhou (廣州) - Manufacturing
- Supporting Cities
 - Dongguan (東莞)
 - Huizhou (惠州)
 - Zhuhai (珠海)
 - Zhongshan (中山)
 - Jiangmen (江門)
 - Fushan (佛山)
 - Zhaoqing (肇慶)

Operational Differences

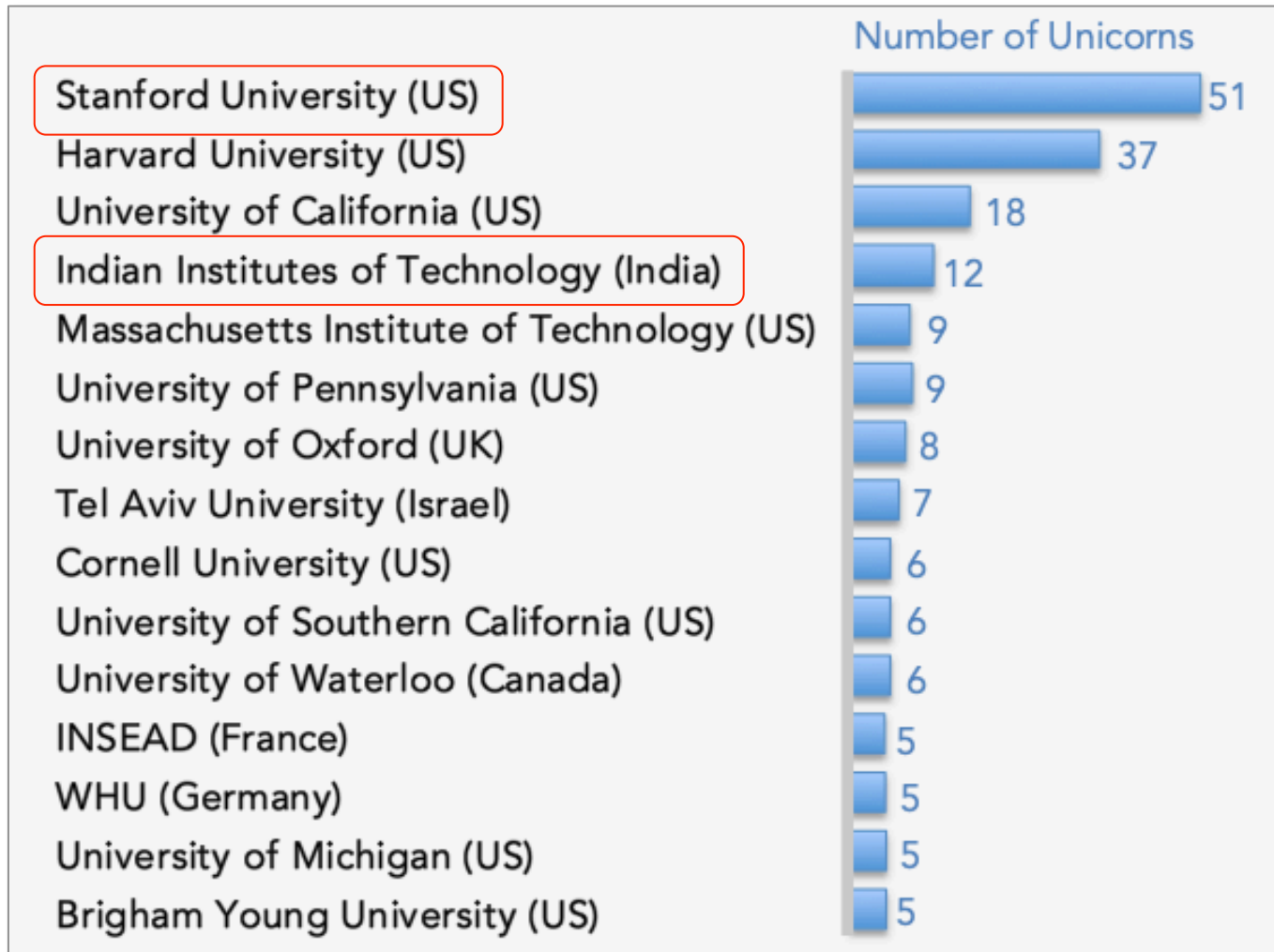
	HONG KONG	USA	CHINA
Incorporation	1 week	1 month	3 months+
Bank Account	1 – 2 months	1 month	3 months+
Foreign Currency	Minimal Control	Minimal Control	Tight Control
Tax Returns	Annual	Annual	Monthly
Audit	Annual	Not Mandatory	Annual
Law System	Common Law	Common Law	Continental Law
Winding up	~2 months	~2 months	3 – 6 months
Employee Benefits	MPF	Social Securities + Insurances	MPF + Insurances 五險一金

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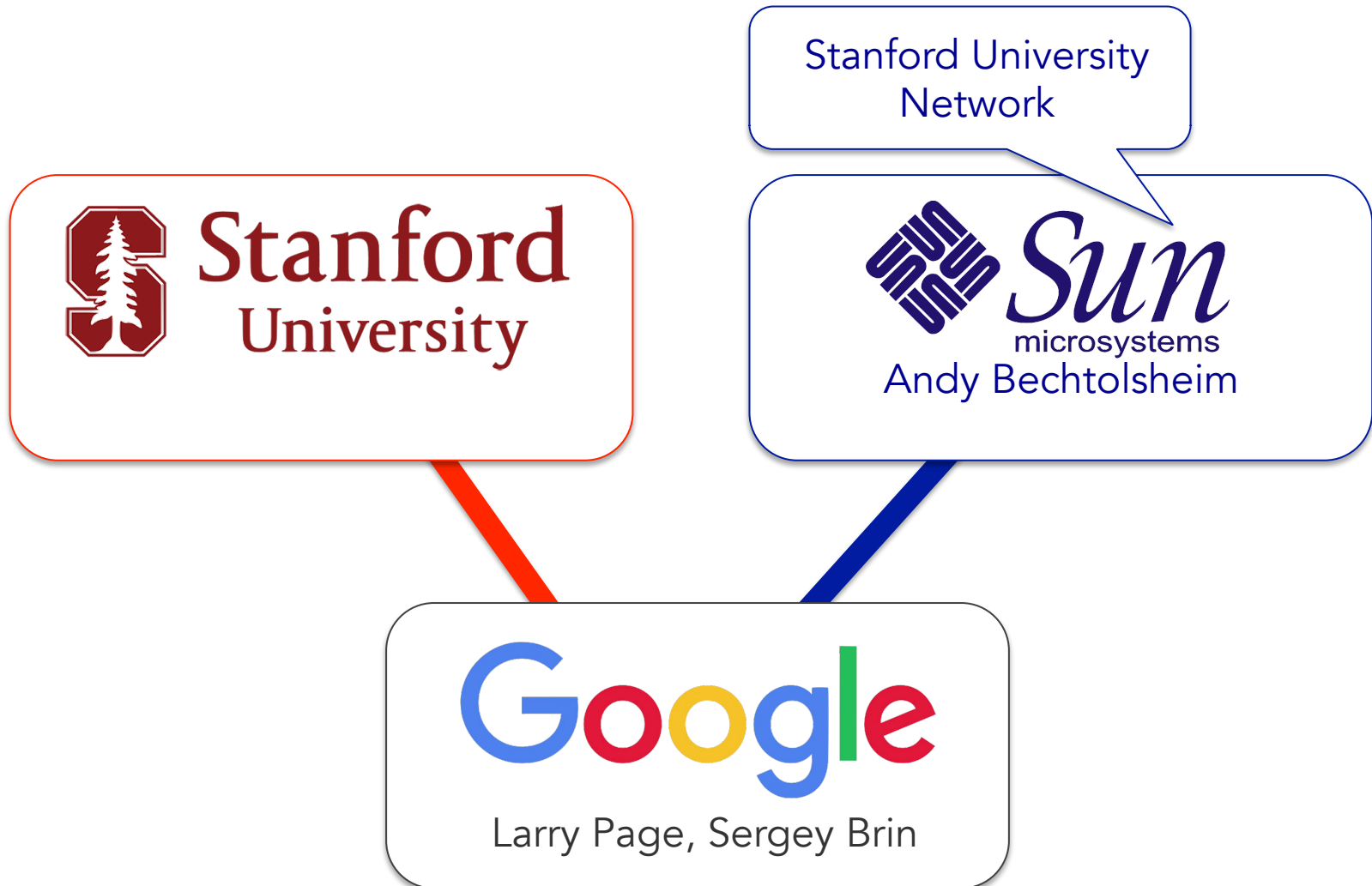
Unicorns – \$1B start-ups

Why so many “Stanford” Unicorns?



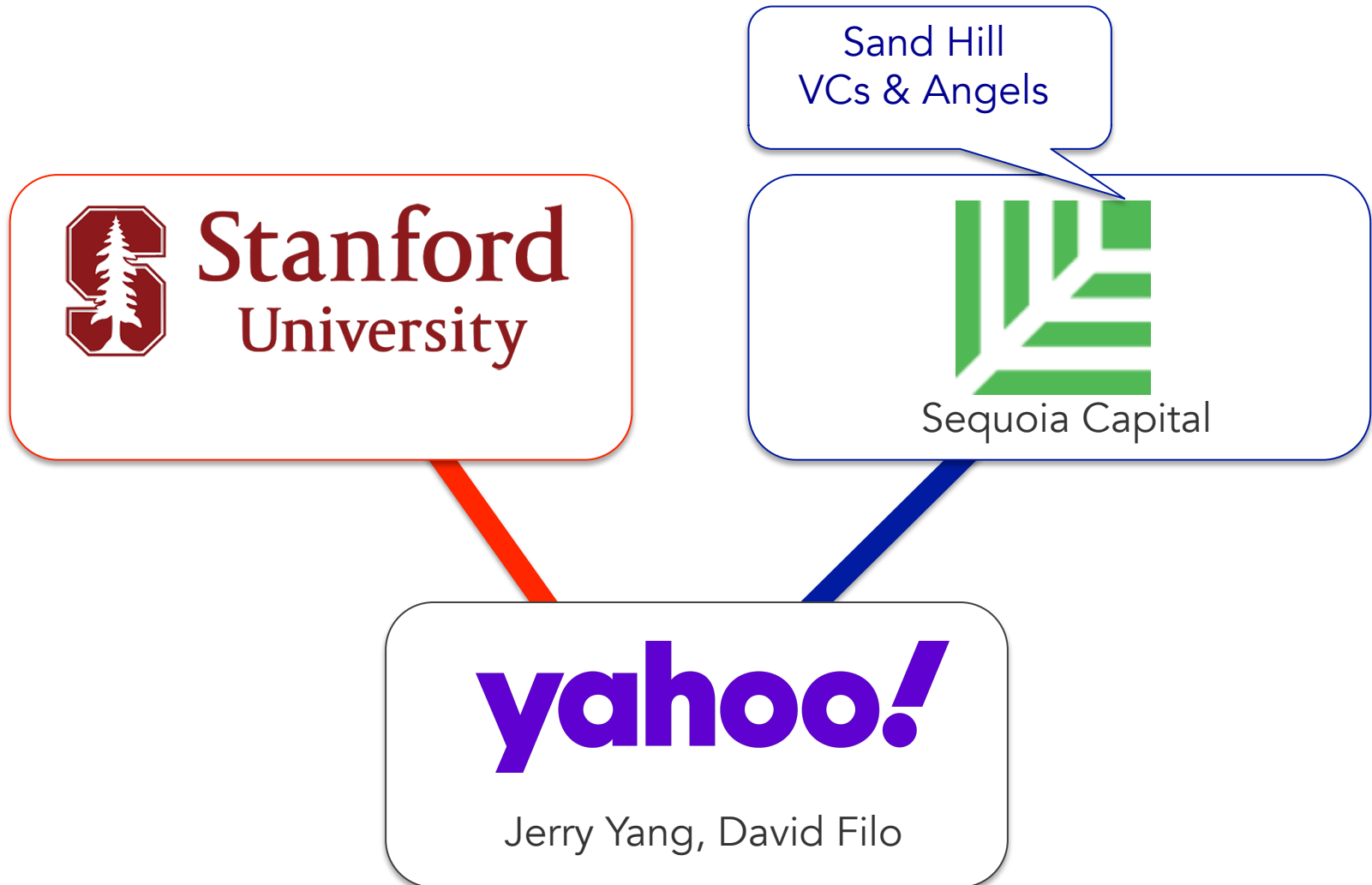
Can we learn from Google?

Key Enabling Factors



Can we learn from Yahoo?

Key Enabling Factors



Can we learn from VMware?

Key Enabling Factors



Stanford
University



Microsoft



A diagram showing two lines connecting the Stanford and Microsoft boxes to the VMware box. A red line connects the bottom of the Stanford box to the top-left of the VMware box. A blue line connects the bottom of the Microsoft box to the top-right of the VMware box.

vmware®

Overview

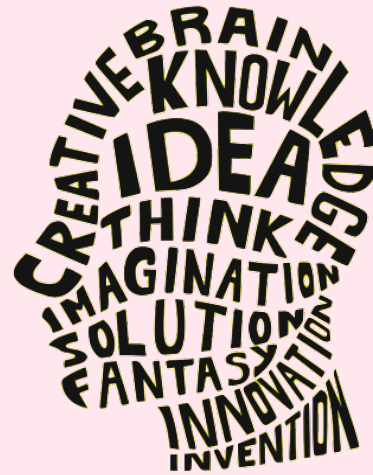
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Myth #1

"Hong Kong Students are less creative than US counterparts."



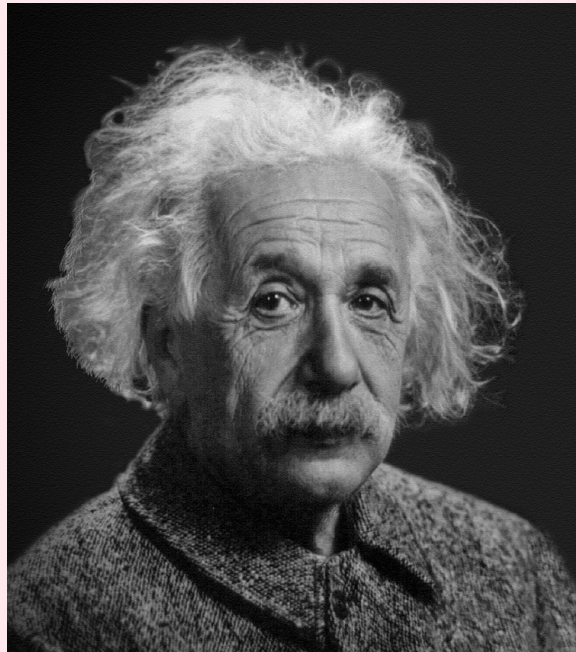
ASIAN MIND?



WESTERN MIND?

Myth #2

"Hong Kong Students are not as Smart as the best US students."



Myth #3

"Hong Kong Students do not have much Entrepreneurial Spirit."



Fact #1 – Success Ingredients

“Silicon Valley encompasses many **YOUNG**, **DIVERSE**, **SMART** and **DRIVEN** engineers.”



Fact #2 – Less Red Tapes

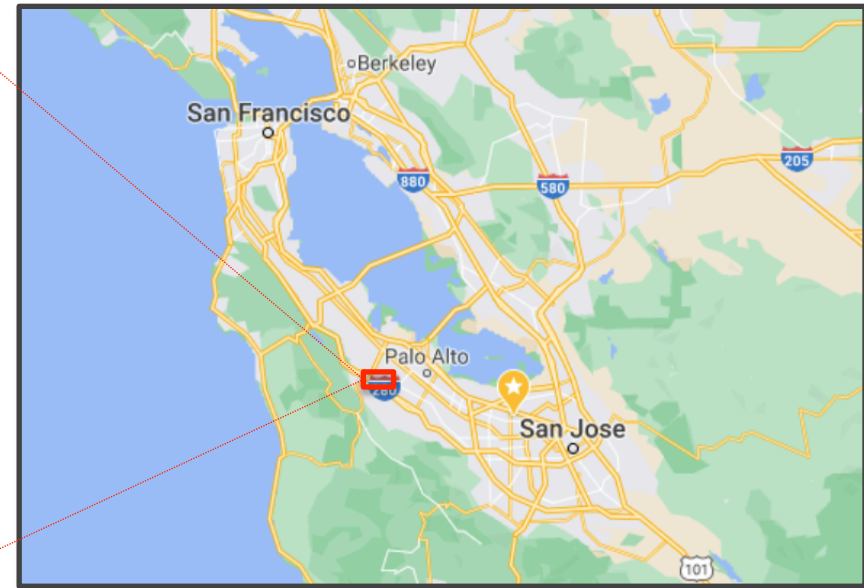
"We train and house these creative minds, and it is only fitting that we invest in their future success."

– then Stanford President John Hennessy



Fact #3 – Easy Access to Funding

Numerous Tier-1 VC Firms on Sand Hill Road



- Astellas Venture Management
- Altos Ventures
- Khosla Ventures
- Canaan Partners
- Altimeter Capital
- GI Partners
- 5AM Ventures
- Lightspeed Venture Partners
- The Westly Group
- Nexus Venture Partners
- Greylock Partners
- Highland Capital Partners
- DCM Ventures
- Shasta Ventures
- Storm Ventures
- Mayfield Fund
- Onset Ventures
- GGV Capital
- The Blackstone Group
- Accel-KKR
- Morgenthaler
- InterWest Partners
- U.S. Venture Partners
- Kleiner Perkins
- TriplePoint Capital
- Makena Capital Management
- Silver Lake Partners
- Kohberg Kravis Roberts
- Sofinnova Ventures
- New Enterprise Associates
- Andressen Horowitz
- Charles River Ventures
- Draper Fisher Jurvetson
- Battery Ventures
- Sierra Ventures
- Institutional Venture Partners
- Mohr Davidow Ventures
- Menlo Ventures
- Storm Ventures
- Redpoint Ventures
- Relay Ventures
- Sequoia Capital
- Trinity Ventures
- Columbus Nova
- Bright Capital

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Cities replicating Silicon Valley

- Places with Limited Success
 - Australia (Gold Coast)
 - UK (M4 Corridor)
 - France (Paris Station F)
 - Boise (Idaho)
 - Canada (Montreal)
 - Singapore
- The Greater Bay Area is too different
 - It's **MEANINGLESS REPLICATING** SF Bay Area here

The Greater Bay Area

- Unlike the SF Bay Area, the Greater Bay Area is a very attractive market by itself
 - Population > 66M (~ Britain)
 - GDP/capita > US\$20K (2x Middle Income Trap)
- The Greater Bay Area does not have similar number of Angel and VC investors.
- There is no need to replicate Silicon Valley.
 - As long as we **MOTIVATE** a large number of **YOUNG, SMART, DIVERSE** and **DRIVEN** technologists, the Greater Bay Area can be extremely successful.

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- **Challenges & Opportunities**
- HK High-Tech Positioning

Key Challenge #1

Laissez Faire Policy



Key Challenge #1

Laissez Faire Policy

Encouraging VS Discouraging

Trading

Finance

Short Term Investment

R & D

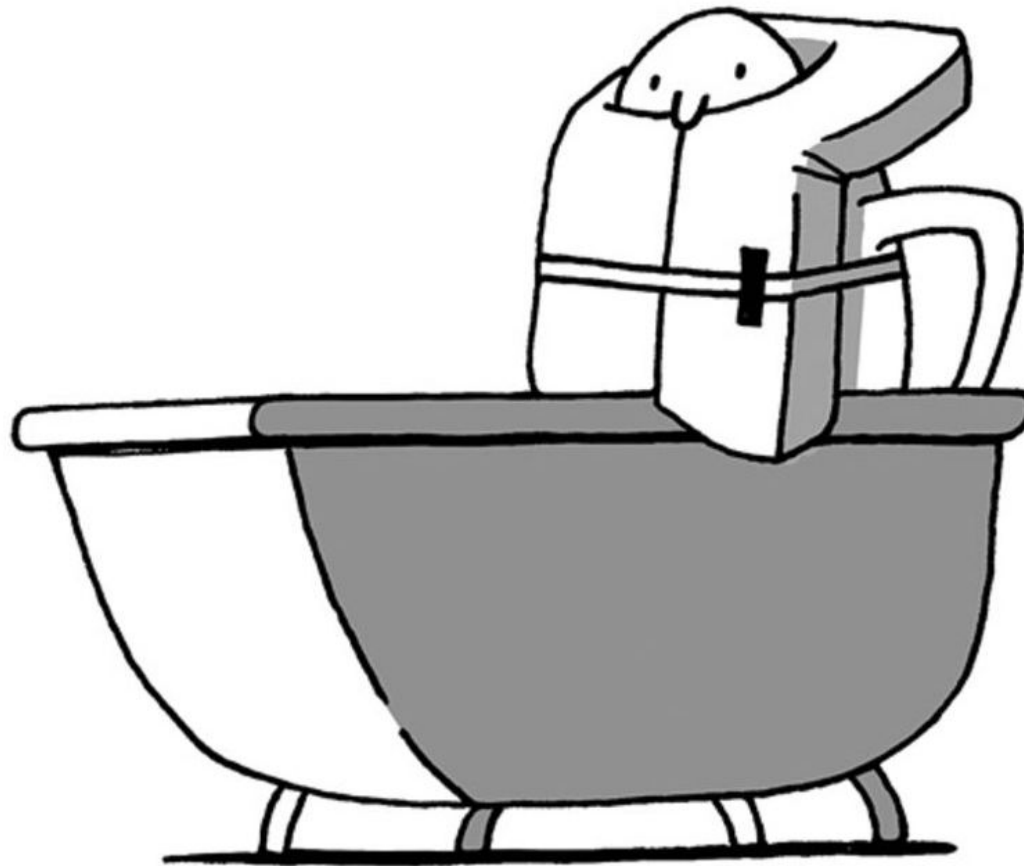
High-Tech Industry

Long Term Investment

Laissez Faire Policy can no longer work in Hong Kong.

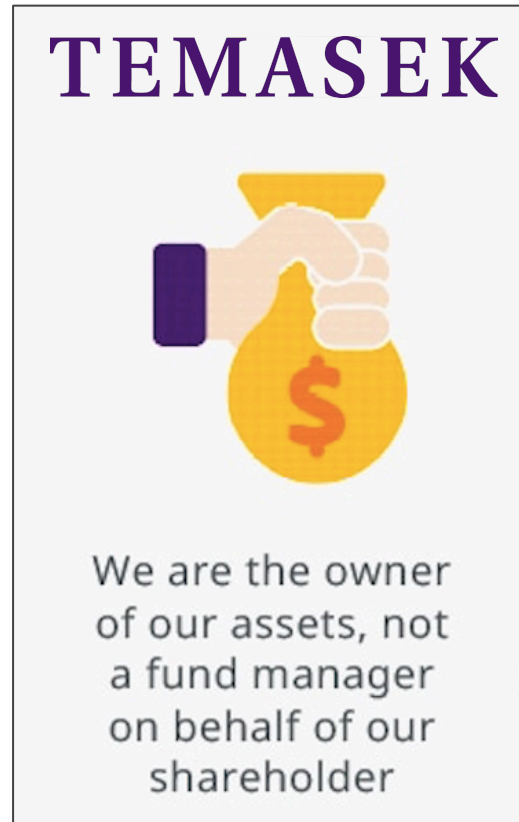
Key Challenge #2

Risk Averse Culture & Policies



Key Challenge #2

Risk Averse Culture & Policies



Like Singapore, our Government must be more proactive and must take more risks.

Key Challenge #3

Booming Property Markets

"Countries with an abundance of natural resources tend to have less economic growth."

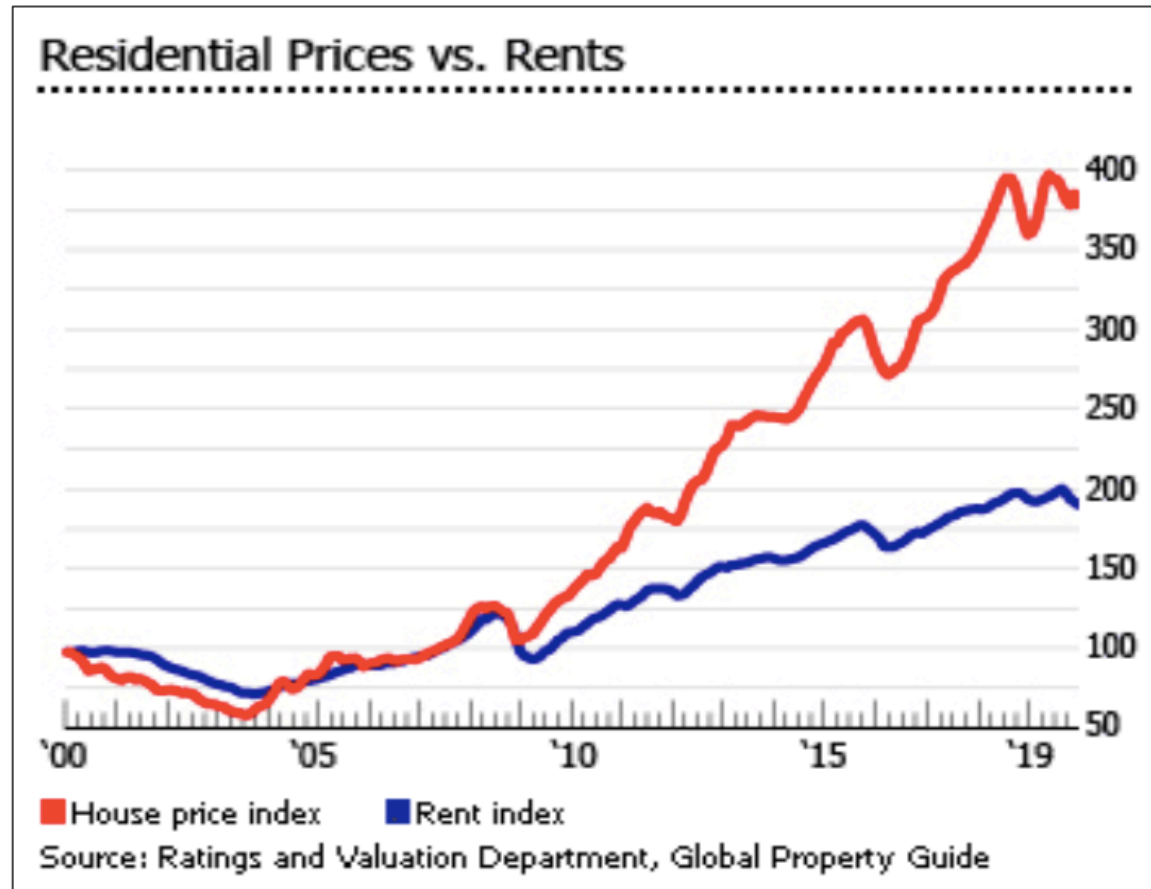
-- Richard Auty called this a Resource Curse in 1993

"Cities with **Booming Real Estate** cannot develop any new industries, including high-tech industries."

-- Few want to invest in high-tech

Key Challenge #3

Booming Property Markets



Recent economic downturn could be a blessing in disguise.

Key Challenge #4


Local Market is Too Small



We must help local start-ups to sell in the Greater Bay Area.


Key Opportunity #1

Hong Kong must migrate to New Economy

- 
- Unsustainable Real Estate Markets
 - Catastrophic Hospitality Industries
 - Busting Retail Industries
 - Depression in Trading Businesses
 - High-Tech is the **ONLY WAY OUT**

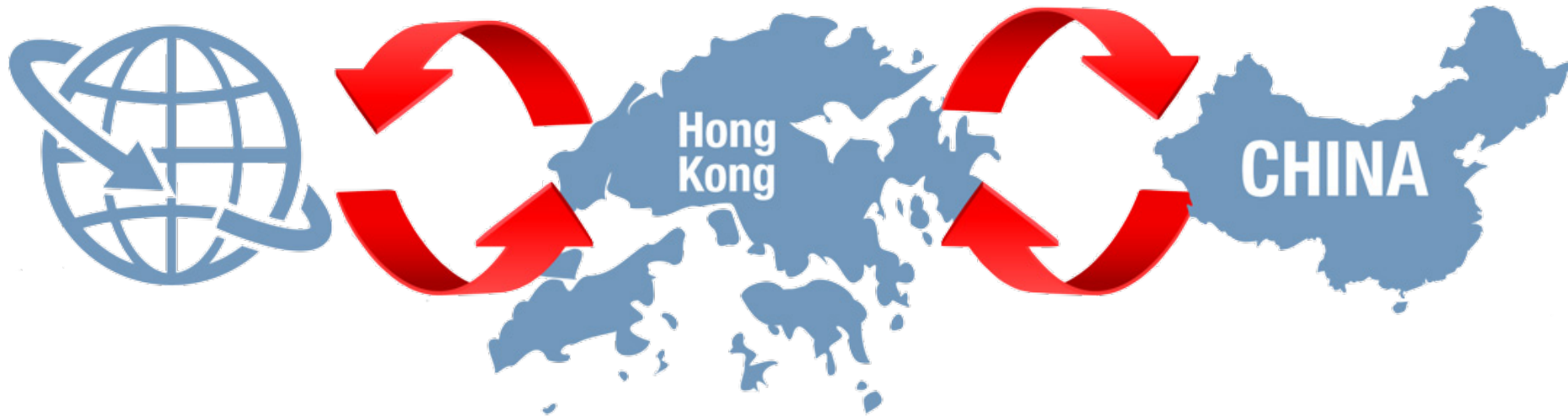
Key Opportunity #2

Old Monies are Moving Out

- 
- Emerging Businesses came into Prominence after 1967
 - History repeats itself after 1997
 - How about 2020?

Key Opportunity #3

Hong Kong is indispensable during Global Trade War



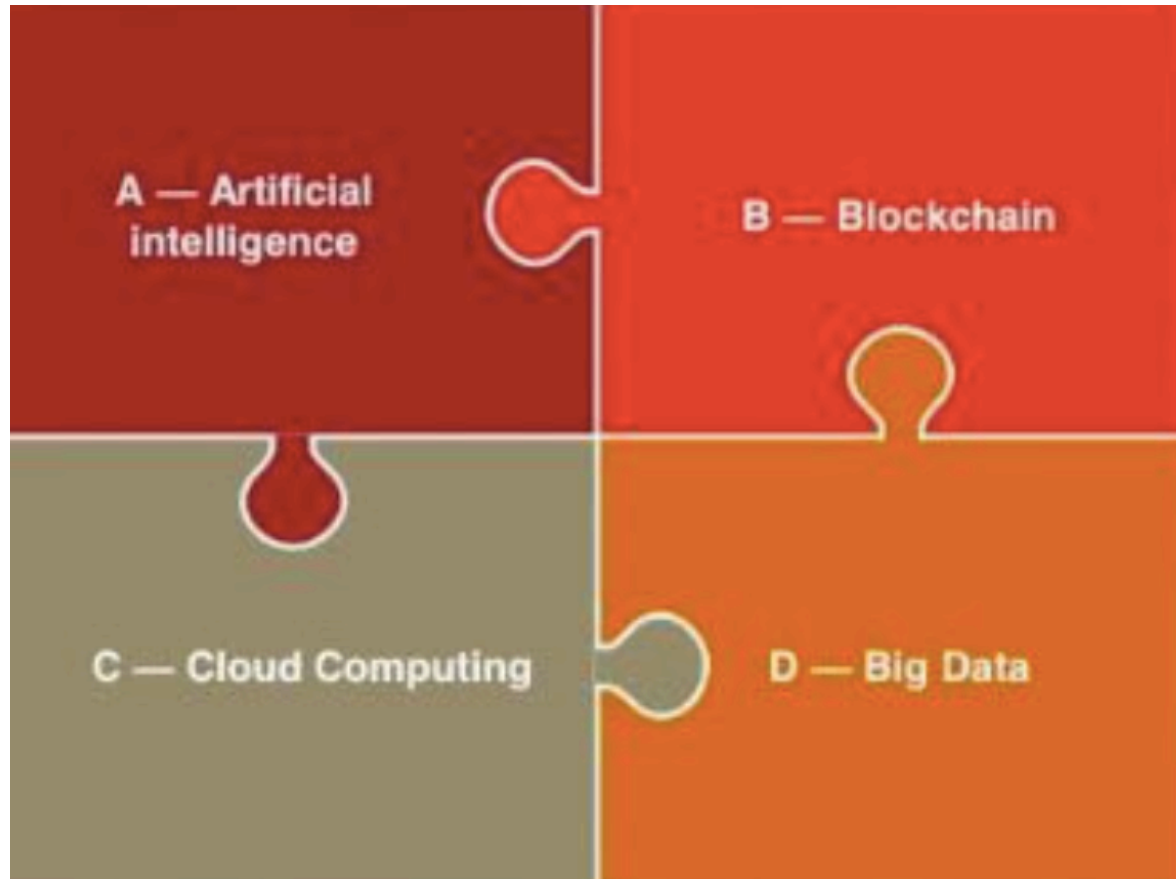
Investment Markets

Technology Collaboration

Technology Licensing

Key Opportunity #4

China encourages Hong Kong to develop High-Tech



Hong Kong must chart its own course.

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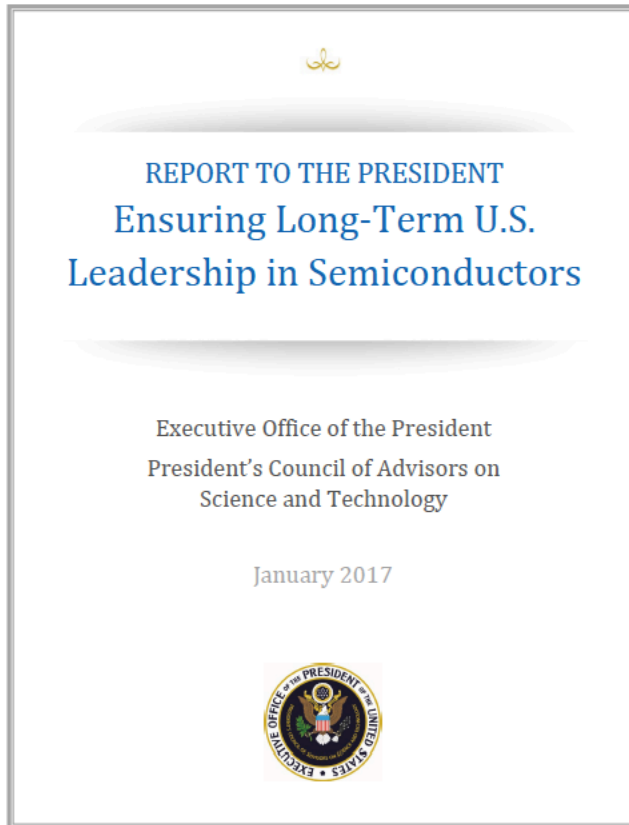
Hong Kong High-Tech Positioning

Potential Government Roles

- The Government can help the Start-ups in Hong Kong MARKET their Products in the Greater Bay Area.
 - The Start-ups can then focus on R & D.
- The Government can directly and proactively VET & FUND Start-ups in Hong Kong.
 - We do not have many Angel & VC investors in Hong Kong, especially in the near future.

Hong Kong High-Tech Positioning

Unique Opportunities – Semiconductors



- Semiconductor industry is booming in China, especially:
 - 5G related chips
- There are many areas suitable for Hong Kong
 - FinTech, Security, Health Care, Robotic related chips
 - EDA TOOLS

Hong Kong High-Tech Positioning

Unique Opportunities – Software

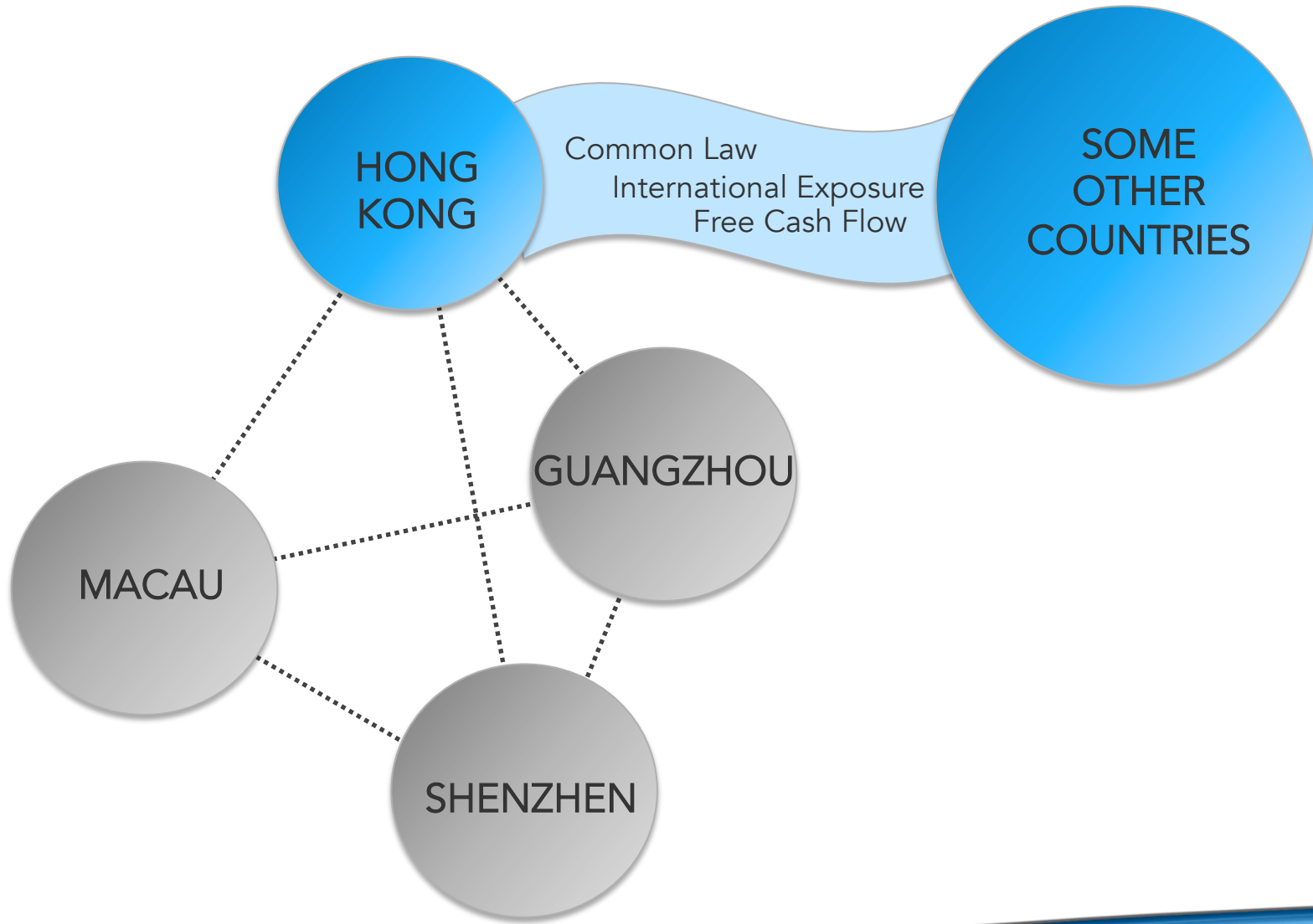
UOS



- **UNITY OPERATING SYSTEM** (UOS) and **HARMONYOS** may replace Windows and Android in a couple of years.
- As China intends to use its own desktop, server and mobile operating systems, there are numerous opportunities for new start-ups.

Hong Kong High-Tech Positioning

Collaboration with Other Cities



Hong Kong High-Tech Positioning

Parting Words

- Most Start-up founders have similar backgrounds.
 - **DIVERSITY** is a key for creativity.
 - It's better to partner with people from diverse backgrounds (e.g. business, technical, creative).
- Hong Kong has many young talented technologists.
 - We need to find better ways to **MOTIVATE** these engineers, programmers, biochemists, ...
- Some said Golden Days had gone.
 - Never have I seen so many **GOLDEN OPPORTUNITIES** for our Next Generation