



THE UNIVERSITY OF
MELBOURNE

Australia-Taiwan Trade and Investment: Building Business Around the New Southbound Policy

Islands of Opportunities: Prospects for Expanding Trade and Investment between Taiwan and Australia

The 32nd Joint Conference of the ROC-Australia and Australia-Taiwan Business Councils
Far Easter Plaza Hotel, Taipei
August 30th 2018

INTRODUCTION

About me

A unique combination of experience in emerging technologies, market development and economic research; public policy advocacy; think-tank facilitation; corporate and government engagement; and peak industry liaison.



Dr BILL PETRESKI PhD
Enterprise Fellow
Digital, Networks & Automation

Relevant Achievements with Taiwan

Bill Petreski is an internationally experienced and commercially driven professional with over 20-years' experience in the innovation and technology sectors where he has been developing and executing business strategies that stimulate the financing, uptake, adoption and commercialisation of emerging technologies across multiple sectors.

Having worked internationally, including Silicon Valley, Bill is a leading expert in emerging technologies, digital and ICT sectors, where he has established a track record in; leadership and management, conducting economic analysis, developing and advocating broad reaching public policy, and has lead the creation of significant research-industry engagement.

Global Opportunities Program: Development of the business plan for a \$20m pilot program within the Department Foreign Affairs and Trade (Austrade).

Established the **Australia-Taiwan ICT Cluster** program within Austrade as a pilot program with key projects in;

- **SmartHealth** technologies; and
- **Track-and-Trace** for the application of RFID technologies in the supply chain

Australia-Taiwan Women Entrepreneur Network was established in 2016 for successful women doing business between Australia, Taiwan and China.



INTRODUCTION

My ventures

Emerging Companies, Technology, Commercialisation & Investment Strategy & the work of the Australia-Taiwan Business Council (ATBC)



Strategy⁶¹ is a boutique Advisory and Private Equity firm that delivers growth strategy, value creation and deal structures for established or mid-market businesses seeking to gain impact from high-technology, high-growth, transformational business models.

We are an acknowledged thought leader in linking strategy, innovation and transformation in technology-intensive and converging industries. We navigate our clients through changing business ecosystems to uncover new growth opportunities and enable them to build innovation capabilities and transform their organisations.

www.strategy61.com.au



Imerj Venture Capital is an Automation Technologies Fund: A high growth venture fund targeting automation technologies in high-growth business with the potential to make global impact in the fourth industrial revolution.

Automation technologies include integrated software, hardware and systems that encompass the harnessing of real-time information, through pervasive technologies, for insight, prediction, planning and decision support in every sector.

Our investment framework, comprising four levers, will propel a supply-demand arbitrage that challenges the conventional venture capital approach.

www.imerj.vc



GO SOUTH POLICY

The original policy was design to target low cost base regions

Encouraged Taiwanese manufacturing firms to establish factories in Southeast Asia in an era of strong economic growth and a strong currency that provided economic advantages through efficient division of labour

- The original 'Go South' Policy was established in 1994 by President Lee Teng-hui and later inherited by Presidents Chen by Presidents Chen Shui-bian and Ma Ying-jeou and implemented in seven different phases.
- Over these decades the policy was implemented in the form of "Guidelines for Strengthening Economic and Trade Ties with Southeast Asia"
- Changed Taiwanese investment from small to medium-sized enterprises in the 1980s to larger firms in the 1990s
- ASEAN countries now constitute the second-largest trading partner for Taiwan after China



NEW SOUTHBOUND POLICY

What are the key drivers for the New Southbound Policy

Motivated by the need for Taiwan to redefine its role in Asia development while the whole world is rebalancing to the region

<p>A reaction to other economic powers have developed their own regional initiatives</p>	<p>Regional setting is undoubtedly more challenging and competition in ASEAN markets are increasing</p>	<p>Taiwan now faces a more powerful China threatens to erode Taiwan's economic future</p>
<ul style="list-style-type: none"> ▪ Japan through the Official Development Assistance (ODA); ▪ Restart of the Act East Strategy developed by India ▪ The 'Pivot to Asia' program jointly advocated by USA and Russia 	<ul style="list-style-type: none"> ▪ In 2016, trade between Taiwan and the New South+18 countries amounted to US\$96 billion, a decrease of 3.3% from 2015 ▪ They want to move up the SMILE curve too! 	<ul style="list-style-type: none"> ▪ China's Regional Comprehensive Economic Partnership and Belt and Road Initiative ▪ The Trade war between China and USA threatens to exacerbate economic cost structures for Taiwan's manufacturing base in China

NEW SOUTHBOUND POLICY

Australia provides the greatest impetus for diversification compared to ASEAN

Taiwan needs to drastically de-risk the economic reliance on the mainland and its skew to ICT by building cultural and business relationships throughout the region

- Establish bilateral economic partnerships with targeted countries to support a **New Model for Economic Development**.
- Aims to secure new regional partners in South and Southeast Asia but Australia and New Zealand seem an afterthought
- Build cultural and business relationships throughout the region through four principles:
 - Economic cooperation;
 - **Special talent exchange programs;**
 - Resource sharing; and
 - Regional integration (diversification).



SPECIAL TALENT EXCHANGE PROGRAMS

The University of Melbourne

Established in 1853, The University of Melbourne is consistently ranked among the leading universities in the world, with international rankings of world universities placing it as number 1 in Australia and number 32 in the world*

Global rankings



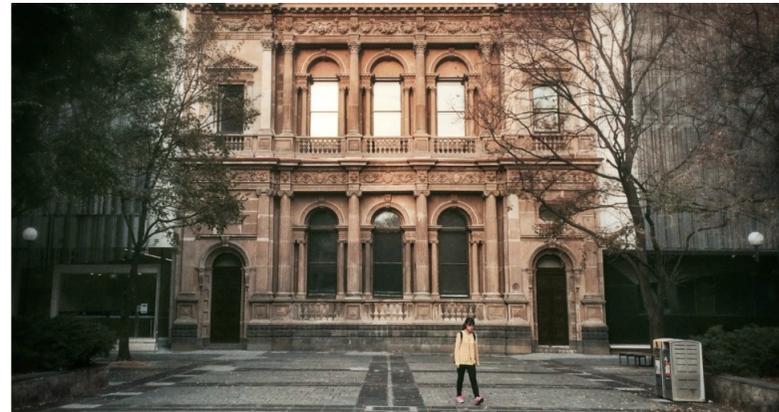
#32
in the world



#7
in graduate employability
worldwide

Times Higher Education World University Rankings 2018/QS Graduate Employability 2018

- 50,000 students
- 40% International from over 130 nations
- A\$475 million in research income
- A\$171 million in government grants from Australian Research Council (ARC) and the National Health and Medical Research Council (NHMRC)



*Times Higher Education World University Rankings 2017-2018.



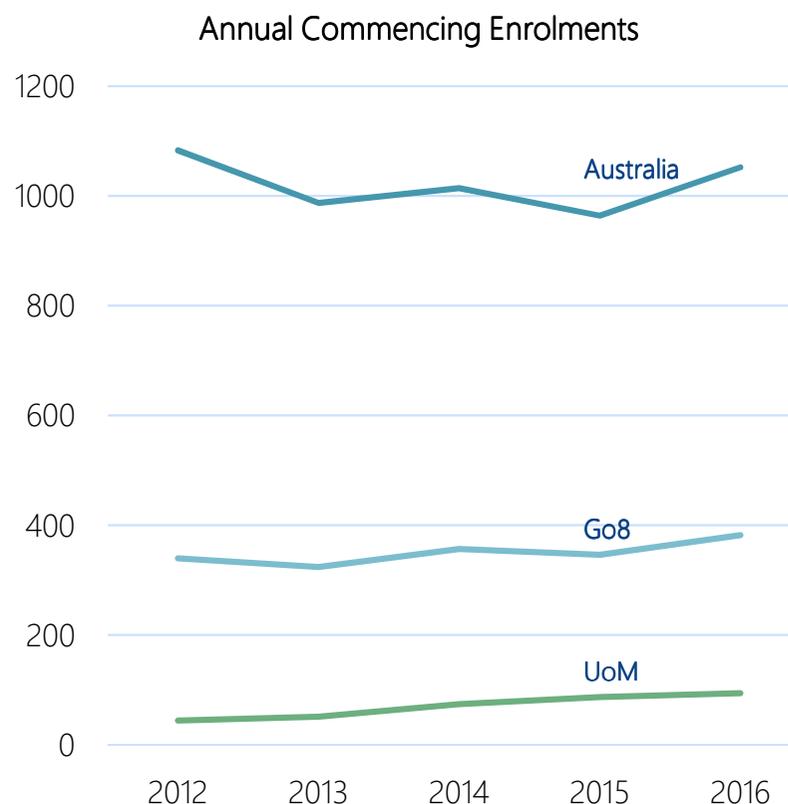
SPECIAL TALENT EXCHANGE PROGRAMS

Forge greater educational linkages with Australian Universities and in particular the University of Melbourne

Broaden scholarships to produce more students from ASEAN and South Asia. Support universities and colleges to build overseas campuses or courses or preparatory programs.

- More than 50% of Taiwanese students attend non Group-of-Eight (Go8) leading Universities.
- By Faculty: Business & Economics and MGSM (33%); Engineering and IT (18%); Science (15%).
- In the Melbourne School of Engineering the majority undertake Masters by Coursework

Institution	Co-authored publications	Co-authors UoM
Academia Sinica	620	195
Institute of Physics Academia Sinica	537	128
National Tsing Hua University	423	92
National Taiwan University	211	143



RESOURCE SHARING

Value creation through research collaborations, particularly in the information and communications technology sector

Establish interactive programs, empower international connections between Taiwan and Melbourne's science parks and research organisations, and inspire exchanges in emerging automation technologies.



Parkville

Ongoing refurbishments to our home for teaching & learning to accommodate student & staff growth

Proposed new wet laboratory building



Carlton Connect

Developing key presence at Carlton Connect, sitting alongside industry & start-ups

Fit out design commenced

Completion Mid-end 2020



Fisherman's Bend

New campus to house large-scale research facilities & enable industry engagement and collaboration

As large as the Melbourne CBD

Completion End 2021

RESOURCE SHARING

Fisherman's Bend Precinct is the largest project in Australia if not the region

- A\$1 billion investment in large-scale engineering research hub that will have hundreds of academics working closely with Australian and International industry.
- The focus will be on ocean engineering, advanced materials, aerospace systems, water-structure interaction, power and energy and autonomous systems research.
- Construction of the hub will start in 2020 with Stage 1 completed in 2022.



REGIONAL INTEGRATION (TECHNOLOGY DIVERSIFICATION)

Digital, Networks and Automation (DNA) Strategy

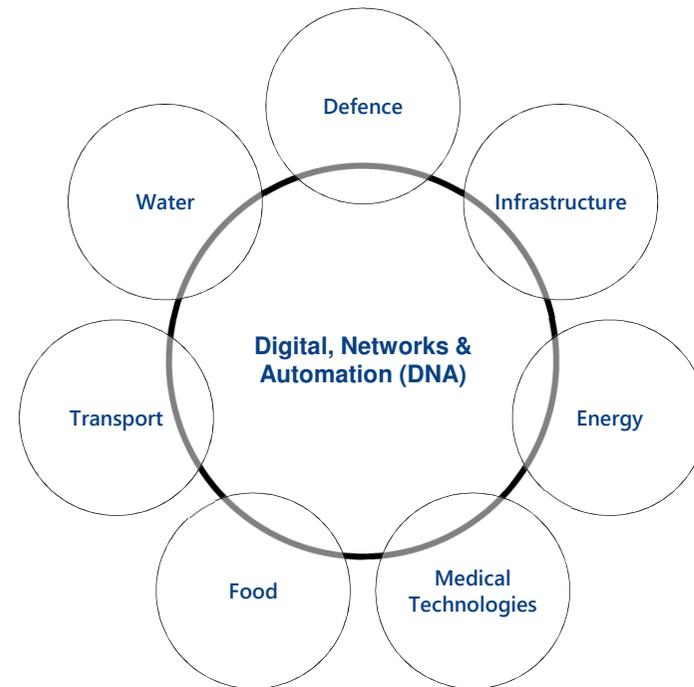
Bring together multidisciplinary teams to tackle the challenges posed by the Fourth industrial revolution

Digital, Networks & Automation (DNA)

A range of new automation technologies that are fusing the physical, digital and biological worlds, and impacting all disciplines, economies, and industries.

Purpose

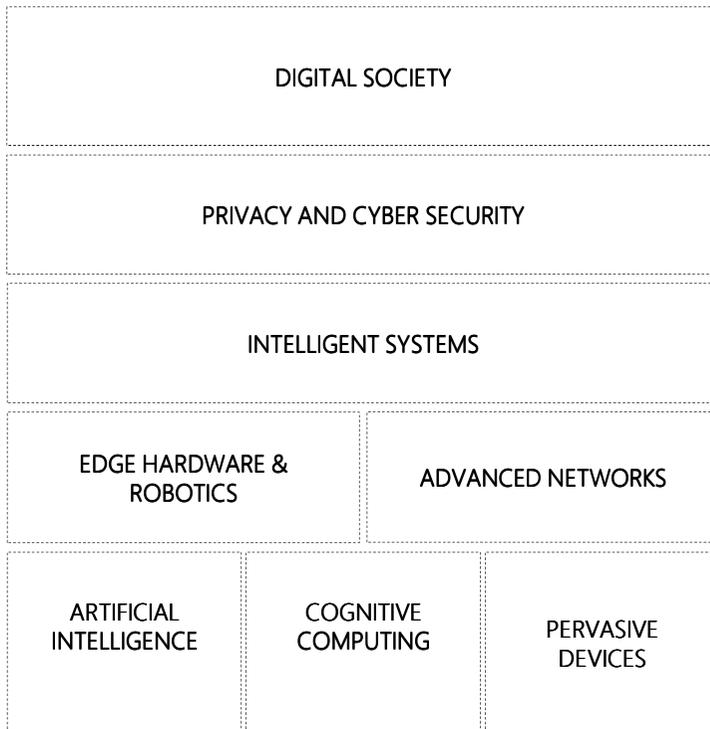
- Transfer knowledge produced within the University to partners;
- Transform that knowledge into competitive, distinctive outcomes that contribute to meeting challenges facing our society; and
- Co-create novel and valuable technologies, products and services that benefit our partners and improve the quality of life for the community



REGIONAL INTEGRATION (TECHNOLOGY DIVERSIFICATION)

Value creation through research collaborations, particularly in the information and communications technology sector

Automation technologies include integrated software, hardware and systems that harness real-time information, through pervasive technologies, for insight, prediction, planning and decision support in every sector



Digital Ethics Network

Address global ethical challenges in emerging issues arising from the increased use and reliance upon digital technologies across society.

The Centre for Advanced Privacy And Cybersecurity

'CAPACITY' will establish frontier research programs in the development of;

- Autonomous agents,
- Artificial intelligence engine;
- Scalable machine learning algorithms;
- Proof-of-Concept platform,
- Informed incident response capabilities

for pervasive devices, such as the internet-of-things, wearables and autonomous vehicles.

REGIONAL INTEGRATION (ECONOMIC DIVERSIFICATION)

Only the Australian market can bring the diversification that is required for the Taiwan economy

The New Southbound Policy calls on Government, Academia and industry to open new opportunities for diversification and potential hedging on global markets.

Sector	iShares MSCI Taiwan	S&P (ASX300)	Blended Portfolio (50/50)
Information Technology	61%	2%	32%
Financials	16%	33%	24%
Materials	10%	18%	14%
Telecommunications	4%	2%	3%
Consumer Discretionary	3%	5%	4%
Consumer Staples	3%	8%	6%
Industrials	2%	7%	5%
Energy	1%	6%	3%
Real Estate	0%	8%	4%
Health Care	0%	9%	4%
Utilities	0%	2%	1%

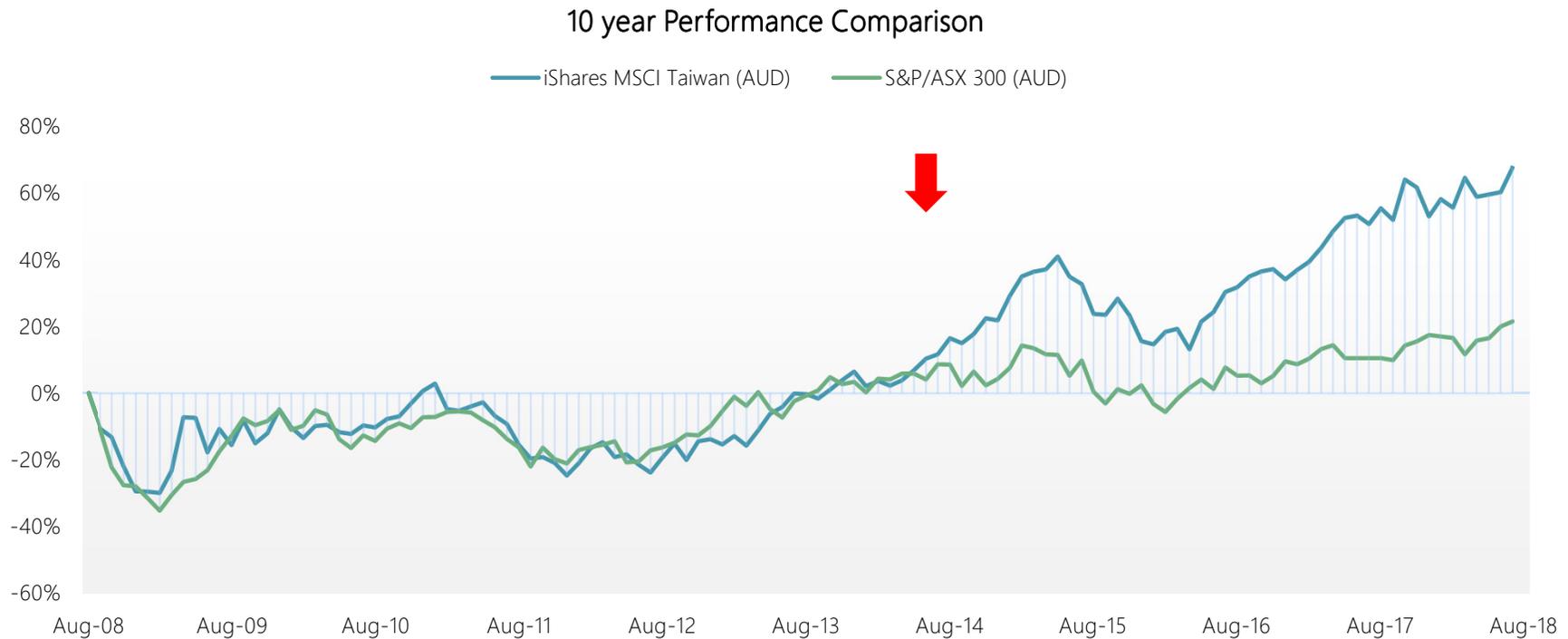
- Taiwan and Australian capital markets are complimentary for diversification and hedging
- Australia could benefit from exposure to Information Technology sector through Taiwan
- Taiwan could benefit from exposure to a number of diverse sectors to meet the principles of the New Southbound Policy



REGIONAL INTEGRATION (ECONOMIC DIVERSIFICATION)

A comparison of Australian and Taiwan's market demonstrates that the global economy

- Australia is the 12th largest Market Globally
- Longest running term – 26 years – without recession
- 6th largest pension fund globally
- Reached 25 million population (20 years earlier than forecast)

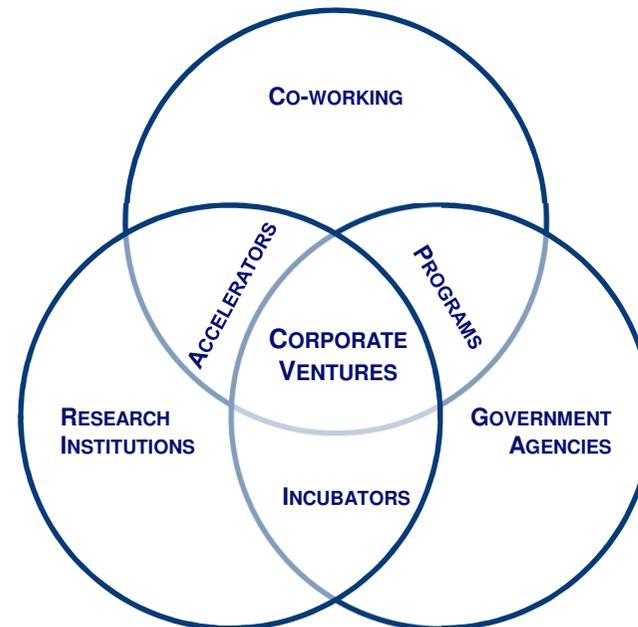


REGIONAL INTEGRATION (ECONOMIC DIVERSIFICATION)

The start-up ecosystem in Australia is booming

Australians are highly entrepreneurial and rank 7th globally for entrepreneurship. The start-up genome's 2017 report places Sydney as 17th and Melbourne as 21st globally. Australia has two Unicorn's in Australia (SEEK A\$6 billion and CarSales.com A\$3 billion) and two in the USA (Atlassian US\$11 billion and MenuLog US\$1 billion).

1. **Advanced Manufacturing:** Drive cultural change, increase competitiveness, unlock new commercial opportunities and drive innovation.
2. **Cyber Security:** Increase collaboration, build capability, innovate and participate globally competitive markets.
3. **Food and Agribusiness:** Grow the share of Australian food in the global marketplace.
4. **Medical Technologies and Pharmaceuticals:** Setting direction to establish Australia as an Asia Pacific hub for medical technology and pharmaceutical companies.
5. **The Mining Equipment, Technology and Services:** Works with Australian mining industry suppliers, global miners, researchers and capital providers to improve competitiveness and productivity.
6. **Oil, Gas and Energy Resources:** Ensure the sector is globally competitive, sustainable, innovative and diverse.



References: Global Entrepreneurship Development Institute (GED) and Start-up Genome 2017



REGIONAL INTEGRATION (ECONOMIC DIVERSIFICATION)

Australian innovation could be the panacea for Taiwan to diversify its economy and “to hold a more advantageous international position”

Taiwan possesses a high capacity to share its experience in agricultural technology, medical treatment, e-commerce, and smart-city-related infrastructure with ASEAN countries.

Agricultural Technologies

Australia's farmers number around 135,000 and produce enough food to feed 80 million people, providing 93% of the domestic food supply.

- Food and Agribusiness Growth Centre; Food Innovation Australia Ltd (FIAL)
- CSIRO Innovation fund
- Macquarie Pastoral Fund
- Berkeley Calga Agribusiness Fund
- CISCO (Melbourne, Perth and Sydney)

Medical Treatment

Melbourne has one of the world's largest life science clusters and is home to more than 40% of Australia's biomedical researchers.

- Cancer care, clinical research and therapeutics
- Infectious diseases and diagnostic testing
- Clinical trials
- Drug discovery and development
- Neuroscience research and development
- Regenerative medicine
- Medical technologies

E-Commerce

Victoria's digital marketplaces generate revenues in the order of \$880m and contribute approximately \$1.6b to the State.

The growth rate of marketplace businesses in the State is 11%, well above the current Growth State Product of 3%.



Smart City

Commonwealth's Smart Cities and Suburbs Program.

The Program supports projects that “apply smart technology, data-driven decision making and people-focused design to deliver economic, social and environmental benefits in metropolitan and regional urban centres”.

- Apply principles of a ‘Sharing Economy’
- Establish Living Labs
- Fully integrated technology platforms and technologies

RECOMMENDATIONS

Taiwan firstly needs to put Australia on the map!

“Over the next 15 years there’s about \$2.2 trillion of economic growth available for Australia through automation - that’s an enormous figure,” - Jason Pellegrino, Managing Director, Google Australia (June 1, 2018)

- Taiwan needs to put Australia on the map, better understand the economy, and develop a more compelling strategy for cultural, academic and economic collaboration;
- Government research organisations - including Ill and ITRI - need to engage within Australia’s global leading ecosystem of science, technology, engineering and mathematics (STEM) in research and teaching and learning;
- If Taiwan is serious about biotechnology research and manufacturing, then should recognize Australia is the leading precinct in Melbourne throughout of all of ASIA (4th Globally behind Boston, San Diego and London);
- Establish interactive programs, empower international connections between Taiwan and Melbourne’s science parks and research organisations, and inspire exchanges in emerging automation technologies;
- Taiwan business should engage more deeply with Australia’s private sector through innovation and entrepreneurial ecosystems for start-ups and scale-ups that can lead to the next unicorn; and
- Develop a startup fund to operate amongst Australia’s strong community of innovation and entrepreneurial opportunities across the broader ecosystem.

Thank you

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