



Today's Speaker



Bruce Brown retired from Procter & Gamble in 2014 as Chief Technology Officer. In his role as CTO, Bruce was responsible for P&G's Innovation and Technology Program, its \$2 billion annual investment in R&D, and over 8,000 global R&D employees. Bruce has over three decades of business-building experience with P&G, in both developed and developing countries. Bruce was appointed by the Government of Singapore as a member of the Board of Directors of the Agency for Science, Technology and Research (ASTAR). In this role, Bruce provides governance for ASTAR's \$2 billion annual investment in research and technology and provides strategic direction to improve the output and effectiveness of its investment. Mr. Brown is on the Board of Directors of Nokia and was named by BusinessWeek in 2010 as one of the world's top 25 Masters of Innovation.



Personal Experience in Singapore

- P&G Long Experience in Singapore Business Office
- 2004: Small R&D Group in Singapore
- 2009: Global R&D Siting Project
- 2010-2011:
 - □ P&G Corporate Agreement
 - □ P&G R&D Center in Singapore
 - Broad Collaborative Agreement
- 2014:
 - □ Open R&D Innovation System
 - □ Open Fragrance Manufacturing Plant
- 2016: New Business Office
- Current: Board Member ASTAR (Since 2011)

Why Singapore as a Strategic Location

- 1. Very stable and supportive government (jobs)
- 2. Infrastructure long-range planning
- 3. Minimal/No corruption
- 4. Gateway to Asia 2/3 of world population within a 6-hour flight
- 5. Favorable relations with other Asian countries
- 6. Talent: education, hardworking, diverse
- 7. Tax
- 8. Country has undergone incredible transformation
- 9. Leader in Smart City/Country great test location

Singapore as a R&D/ Innovation Hub

- 1. Access to Diverse Talent
- 2. External Innovation (ASTAR)
- 3. Access to discriminating consumers/customers

One trade-off: Start-up ecosystem

An overview of Singapore

2016 GDP

\$\$410.3 Billion



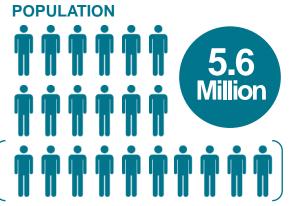
2.0% Real Growth **S\$73,167** Capita GDP



INDEPENDENT SINCE

9 AUG 1965

Sources: Singapore in Brief 2015, Department of Statistics and Singapore Startup Ecosystem 2015, Infocomm Investments



3.9 Million (70.2%) Singapore residents

LITERACY RATE aged 15 & above

76.6% aged 25-34 with tertiary qualifications

MOBILE PHONE PENETRATION RATE

92.7% 2004 **148%** 2014



HOUSEHOLD ACCESS TO BROADBAND

65% 2004 **88%** 2014





An overview of Singapore

1st
BEST QUALTY
OF LIFE IN ASIA

Quality of Living Worldwide City Rankings 2017, Mercer 7th
MOST LIVEABLE
CITY WORLDWIDE
Global Liveable Cities Index 2015.

Global Liveable Cities Index 2015, Asia Competitiveness Institute

5th

WORLDWIDE ON THE MORI FOUNDATION GLOBAL POWER CITY INDEX 2016

Measures attractiveness of cities to creative individuals and enterprises, and their mobilisation towards economic, social and environmental development



SINGAPORE STUDENTS RANKED AMONG THE TOP IN READING, MATHEMATICS AND SCIENCE



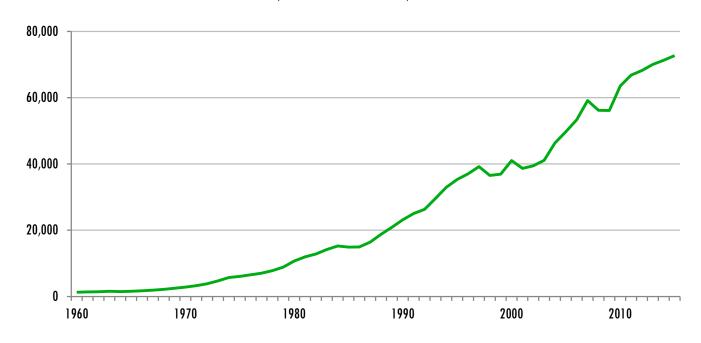
IN STEM (SCIENCE, TECHNOLOGY ENGINEERING & MATHEMATICS EDUCATION

World Economic Forum Global Competitiveness Report 2014

Programme for International Student Assessment

Singapore's Economic Progress

Singapore's per capita GDP: from \$\$1,600 in 1965 to \$\$73,000 in 2016



Population and land area		Labor force and education		Broadband penetration, %	
Population	5.6m	In employment	3.6m	Household	103
Singapore residents	3.9m	Unemployment rate	2%	Mobile	148
Land area	719 km ²	Literacy rate	97%	Individual wireless	190

Singapore: A vibrant business hub







7,000Multinational corporations 60% with global or regional headquarters

Ease of doing business

Rank	Country	
1	New Zealand	
2	Singapore	
3	Denmark	
4	Hong Kong	
5	South Korea	

Strong IP protection

Rank	Country	
1	Switzerland	
2	Finland	
3	Luxembourg	
4	Singapore	
5	Netherlands	

Best labour force



37,400
International companies
Including 3,200 from China,
4,400 from India, and 7,900
from ASEAN (excluding
Singapore)

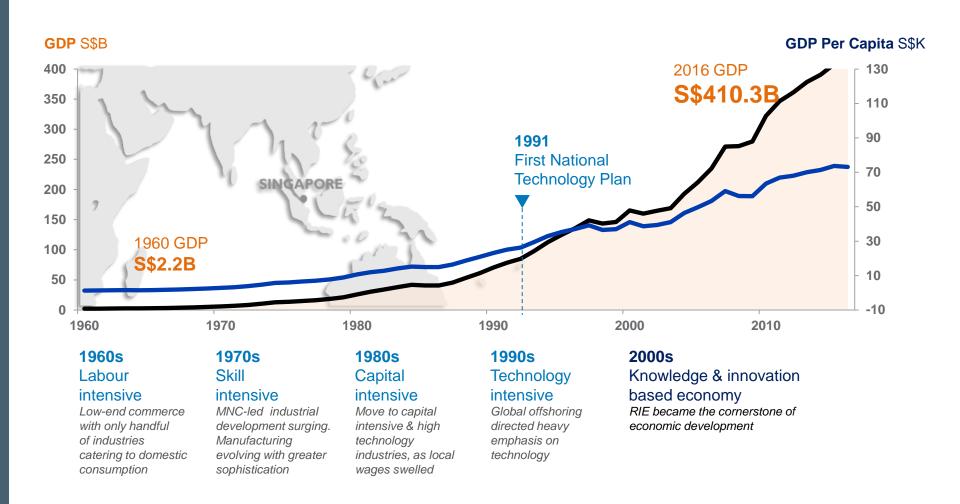
210,000 Small & medium enterprises 1,000 identified with the goal of growing revenues to S\$100 million

Source: Ease of Doing Business Index (2016), World Bank

Source: Global Competitiveness Report (2016/7), World Economic Forum

Source: Labour Force Evaluation Measure (2015), BERI Source: Accounting & Corporate Regulatory Authority (2Q 2010), Department of Statistics, Economic Strategies Committee

RIE integral to Singapore's economic strategy



Profile of Singapore's Economy

2016 GDP, S\$

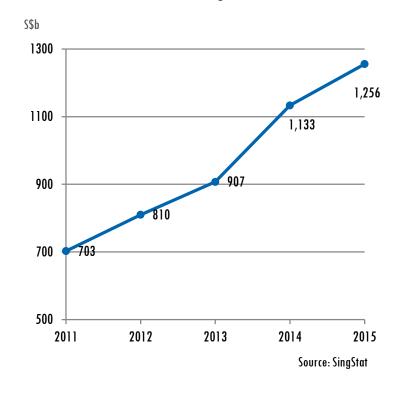
410b

2.0% growth

Industry % GDP Manufacturing 19.6 **Business services** 15.8 Wholesale & retail trade 14.2 Finance & insurance 13.1 Other Services Industries 12.2 Transportation & Storage 7.6 Construction 5.0 Ownership of Dwellings 4.4 Information & Communications 4.2 **Accommodation & Food Services** 2.2 Utilities 1.5 Goods-producing Services-producing Others 2015 stock FDI, S\$

1,256b

12.8% growth



2015 hi-tech exports	Ease of doing business	Competitiveness	
US\$131b	2nd	2nd	
4th largest in the world	source: World Bank	source: WEF	

Sustained government commitment to Research, Innovation & Enterprise

"Our target is for total R&D expenditure to reach 2% of GDP by 1995. This means increasing research spending by 25% per year over the next 5 years...

...The government will allocate up to \$2billion to support research and development over the next 5 years."



Lee Hsien Loong, DPM Launch of NSTB 9th Sept 1991

"Singapore's long term aim is to be among the most research intensive, innovative and entrepreneurial economies in the world. Increasingly, intellectual capital will be critical for our next phase of economic development.

Hence, the government will allocate S\$16.1 billion to support research, innovation and enterprise activities in the next 5 years."



Lee Hsien Loong, Prime Minister 4th RIEC Meeting 17th Sept 2010

"RIE (Research, Innovation & Enterprise) will continue to be important to secure our future. It contributes significantly to the economy and creates opportunities and jobs. It supports national initiatives like Smart Nation, Skills Future... under the Committee of Future Economy

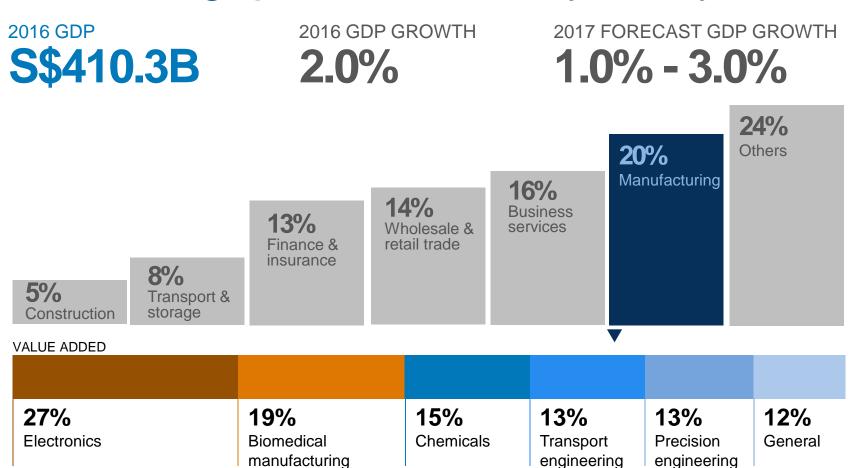
... Therefore, for the RIE 2020 Plan, we are committing S\$19 billion, 18 % more than the previous plan and the spending will be about 1% of GDP."



Lee Hsien Loong,
Prime Minister
Announcement of RIE 2020
8th Jan 2016

1990 2010 2016

Singapore's economy today

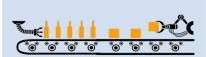


Source: MTI 2017 Growth Forecast, DOS, Breakdown of Manufacturing VA based on 2015 figures

Domain-based Governance Framework

Prioritization of RIE agenda into four technology domains aligned to areas of competitive advantage and/or national needs

DOMAINS (VERTICALS)



Advanced Manufacturing and Engineering (AME)

Support growth & competitiveness of manufacturing & engineering sectors



Health and Biomedical Sciences (HBMS)

Advance human health & wellness, and create economic value for Singapore & Singaporeans



Services and Digital Economy (SDE)

Leverage digital innovation to create economic opportunities and meet national priorities



Urban Solutions and Sustainability (USS)

Develop a sustainable & livable city through integrated solutions for Singapore and the world



Academic Research

Build up a significant base of capabilities and a pipeline of ideas that can drive the next phase of growth



Manpower

Build a strong research and innovation community

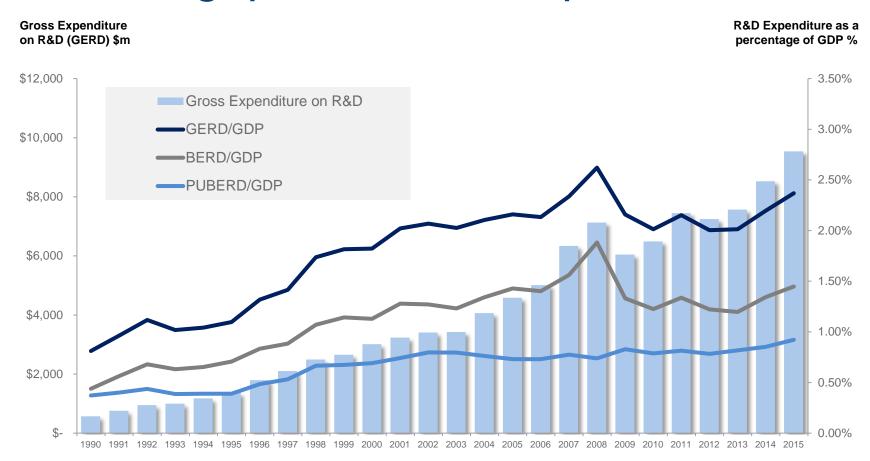


Innovation & Enterprise

Build a strong core of innovative enterprises that drive value creation and economic competitiveness

CROSS-CUTTING PROGRAMMES (HORIZONTALS)

Singapore's R&D expenditure



Source: R&D Survey of Singapore

Strong Presence of Multinational Corporation with regional and global Mandates



























A vibrant Ecosystem of Global mid-sized Enterprises



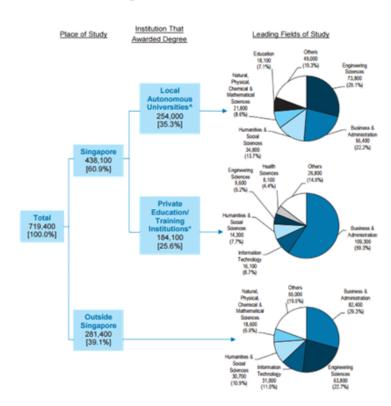
Manpower & Talent Landscape

Singapore has a diverse and skilled workforce

Tertiary Institutes

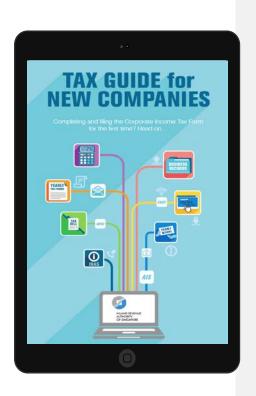


Profile of Degree Holders in the Labour Force



Source: Labour Force in Singapore 2015, MOM

Singapore's Corporate Tax Regime



Corporate Tax Rates

Companies are taxed at a flat rate of <u>17%</u> on chargeable income.



Broad-Based Tax Relief Schemes



Productivity and Innovation Credit Scheme

Tax Exemption

Wage Credit Scheme

For further information, please refer to : http://www.iras.gov.sg

Next Steps



- Willing to liaison with Clark Schaefer Hackett
- Access to Needs in Singapore
- Phillicia Lim(Phillicia_Lim@edb.gov.sg)

Want More Information?





Dan Fales - Chair, InternationalBusiness Services Groupdfales@cshco.com

• 513.768.7526