MaGIC
Malaysian Global Innovation & Creativity Centre

MALAYSIA INNOVATION STATE REPORT 2017

CONTENTS

DISCLAIMER

The Malaysia Innovation State Report (2017) is the result of a collaboration between MaGIC's Corporate Responsibility Partners. The report and any opinions expressed in this publication are the sole responsibility of MaGIC. The terms 'country', 'economy', and 'nation' as used in this report do not in all cases refer to a territorial entity that is a state as understood by international law and practice. Any boundaries and names shown and the designations used on any visual maps do not imply official endorsement or acceptance by any of the co-publishers.

Suggested citation: MaGIC Malaysia (2017). The Malaysia Innovation State Report.

Report designed by: Abdul Aiman bin Abdul Jamil

CEO`S NOTE

Ashran Dato` Ghazi
CEO
MaGIC

Innovation is disrupting traditional thinking, and shifting services and products to a new, competitive level. The Fourth Industrial Revolution will bring a range of new, disruptive technologies impacting all disciplines, economies and industries.

New emerging technologies are presenting opportunities for us to reimagine the future of how we do things. In 2018 and beyond, we hope to see more radical and imaginative interdisciplinary innovation to transform many of our industries, and create unprecedented opportunities for lower income groups. We will see more creative ways of delivering services and maximising existing assets for business operations from startups to corporates, and Government services to the social sector. Innovative solutions that can be adopted by various disciplines and capture a global market will facilitate increased capital and a new market for radical innovation, while keeping our industries and economy resilient.

MaGIC aims to accelerate the development of our entrepreneurship ecosystem by designing the fundamentals to tap on future developments and growth opportunities. We want to challenge all stakeholders involved in the ecosystem to build on best practices garnered globally to drive far-reaching impact: from the support structure all the way to the right policies, frameworks and new ways of working. Our entrepreneurs should not only be focused on delivering new services or changing up traditional ways of working, but to also explore emerging areas like social innovation, and redesign the way they approach different industry verticals.

Now more than ever, there is an increased need for collaboration amongst private and public sectors to create an innovation Blue Ocean Shift in the country, where government institutions and regulators work together with corporates and startups in a collaborative environment. To support this platform, MaGIC, working closely with key government agencies, will drive the creation of Innovation SuperClusters, which will be aligned with regulatory sandbox clusters at the Futurise Centre to accelerate growth, drive high-impact innovation, and push the scaling up of startups in key areas that form the foundation of future economies. This will be achieved through industry and regional collaboration on a massive scale.

A culture of creativity and innovation has long been the foundation of Malaysia's growth. Creativity and innovation, as catalysts of economic growth, have become firmly integrated into our nation's agenda in our National Transformation 2050 (TN50) roadmap. Unlocking the potential of innovation and disruption, and promoting a culture of creativity and curiosity are at the heart of Malaysia's efforts to build a future-ready economy.

AUTHOR`S NOTE

Debra Fong
Ecosystem Analyst
MaGIC

Innovation as we see it today is crucial in every corporation to keep up with turbulent times driven by rapid changes in economy, society, and culture. Implementing innovation is by far one of the most challenging things, which can easily lead to disappointment and failure. However, with the right talent, tools and mindset, it can also enable great transformation on an unprecedented scale. Today, Malaysia is regarded as a top developing country in Southeast Asia and is greatly welcomed as a trading partner around the world. This has encouraged the boom in startups, leading to the generation of new job sources and helping transform the urban landscape.

As I was researching and collecting viewpoints for this report, there were a few common factors that were constantly highlighted with regards to the corporate and government sectors executing innovation initiatives successfully -- and that is the need for openness, collaboration, and alignment to achieve the same end goal. Although the world has become more interconnected and interdependent, ironically the introduction of new technologies in this era encourages the elimination of human interaction. Having said that, this compels us to really rethink our future: of having the need to instil moral values and the understanding of different cultures, to encourage a harmonious nation, and to propel us in the right direction of working together in peace.

I hope for a better future for the people today and the new generation who will be the future leaders of tomorrow. Let us all put our differences aside and steer innovation together to better the livelihood of everyone in this world.

ACKNOWLEDGMENT

MaGIC would like to thank the following parties for their contributions in preparing this report :

EXECUTIVE SUMARY

The term 'innovation', as defined by the The Organisation for Economic Co-operation and Development is the implementation of a new or significantly improved good, service, or process, a new marketing method, or a new organisational method in business practices, workplace organisation or external relations (OECD/Eurostat, 2005). Not only innovation is a key role in the economy and society where it is responsible for contributing growth and jobs, but it also helps to address environmental and social challenges. Thus, in order to remain competitive to tackle globalisation, Malaysia need to be quick to adapt and know when to enter new markets at the right timing.

It is safe to say that Malaysia has remain steadfast in its commitment to being healthily competitive in the global market, as portrayed in the latest Global Competitiveness Index 2017-2018 rankings at 22nd place out of 137 countries globally, an improvement of three spots as compared to the previous year. However, Malaysia's Global Innovation Index rankings have dropped by two spots in the latest 2017 rankings, standing at 37th place out of 127 countries. Nevertheless, Malaysia has come very far today with what the country has achieved so far - from the ranks of a low-income economy in the 1970s to a high middle-income economy in 1992 until today.

New Economic Policy 1971-1990

Focused on poverty eradication irrespective of ethnicity and eliminating identification of ethnicity by economic function.

National Development Policy 1991-2000

Focused on ensuring the balanced development of major sectors of the economy and regions, as well as reducing socio-economic inequalities across communities.

National Vision Policy 2001-2010

Focused on building a resilient and competitive nation.

National Transformation Policy 2011-2020

Maintains the people centric focus through the New Economic Model, which sets the goal of becoming a highincome economy that is both inclusive and sustainable.

Transofrmasi Nasional 2021-2050

The vision is to become a top 20 nations in the world in economic development, social advancement and innovation.

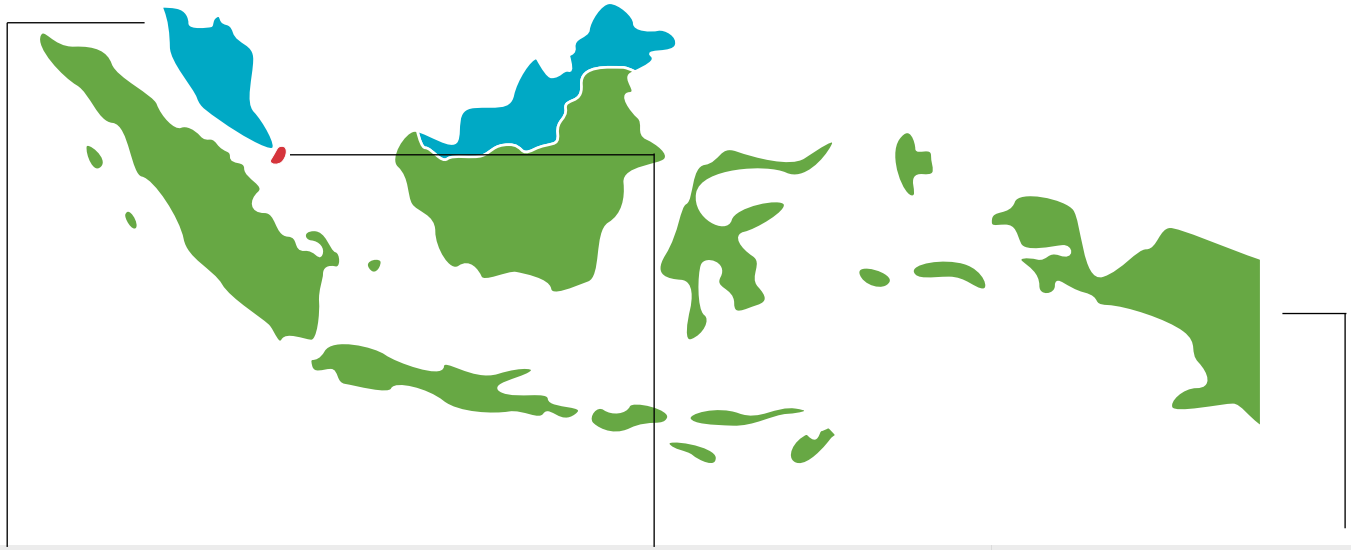
Fuelled by the fast-paced growth of computing and communication technologies, the world is increasingly becoming highly connected with a seemingly unlimited supply of information. It is impossible to avoid the touch of technology in anything we do; so ubiquitous is technology that it has a massive impact on economy, politics, culture, society, and of course, our own personal lives. TRANSFORMASI NASIONAL 50 (TN50), the government's long term bottom-up initiative to shape Malaysia into the Nation of its citizens' aspirations, looks at four components that makes up a well developed nation: Economy & Finance, Society & Culture, Geopolitics, and Science & Technology. What will shape these aspects moving forward are influenced by effective leadership and governance, economic growth, and equitable distribution of wealth, greater access to education and trainings, adaptation to STI interventions and capacities, the unison of people and cultivation of noble values, nurturing of talent, urbanisation and the rise of megacities, encouragement of green and sustainable practices, and maintaining a healthy population and spread of demographics.

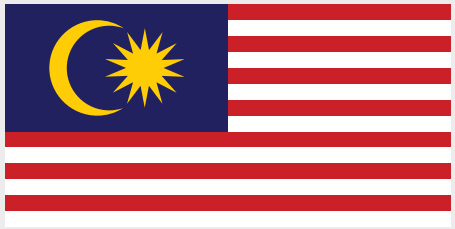
This Innovation State report will particularly be focusing on innovation through entrepreneurship and is a collaboration with MaGIC's CER (Corporate Entrepreneurship Responsibility) Circle partners. The research carried out for this report studies innovation indicators that relate to entrepreneurship taking multiple views from across the innovation ecosystem to map the activities, support, opportunities, and challenges in improving Malaysia's innovation performance.

As this report was prepared, the key takeaways that we felt makes a favorable innovation habitat is a proper incorporation of factors across categories:

- The need for more knowledge and talent creation produced by tertiary education institutes, firms, and government
- The ability to sustain culture and value by the society
- The advancement of technology and innovation ecosystems facilitated by the government
- Favorable regulatory framework set by the government to sustain the city system
- Global integration and the city's orientation towards the future, indicated by a high level of the city's connectivity and environmental sustainability

IN A NUTSHELL...





Despite being hit by the Global financial crisis in 2009, the Malaysian economy managed to recover quickly and continued to grow solid of rates averaging 5.7% per year eversince 2010. Malaysia today is made up of a diversified economy and has become a leading exporter of electrical appliances, electronic parts and components and natural gas.

Singapore today is the world's most business-friendly regulatory environment for local entrepreneurs and is ranked among the world's most competitive economies. What remains strong are its manufacturing and services sectors which makes up the twin pillars of Singapore's economy

Emerging as a middle income country and having maintained political stability, Indonesia is Southeast Asia's largest economy. Infrastructure development and social assistance programs related to education and health-care are some of the sectors that the Indonesian government is currently focussing on.

MALAYSIA

31,187,260

4.2%
GDP

Efficiency Driven
Economic Development Phase

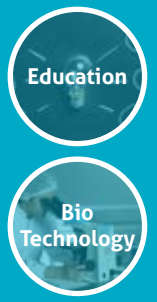
25th out of 138th
Global Competitive Index Ranking 2016/2017

37th out of 127th
Global Innovation Index Ranking 2017

ITEX, GEC Summit, MTE & NICE Expo
Notable Innovation Events

Major Industries

Emerging Industries



Notable Government Efforts to Boost Innovation

- The goverment to share its data for more accurate analysis on data.gov.my.
- Digital Free Trade Zone
- Futurise Center
- Cloud First Strategy

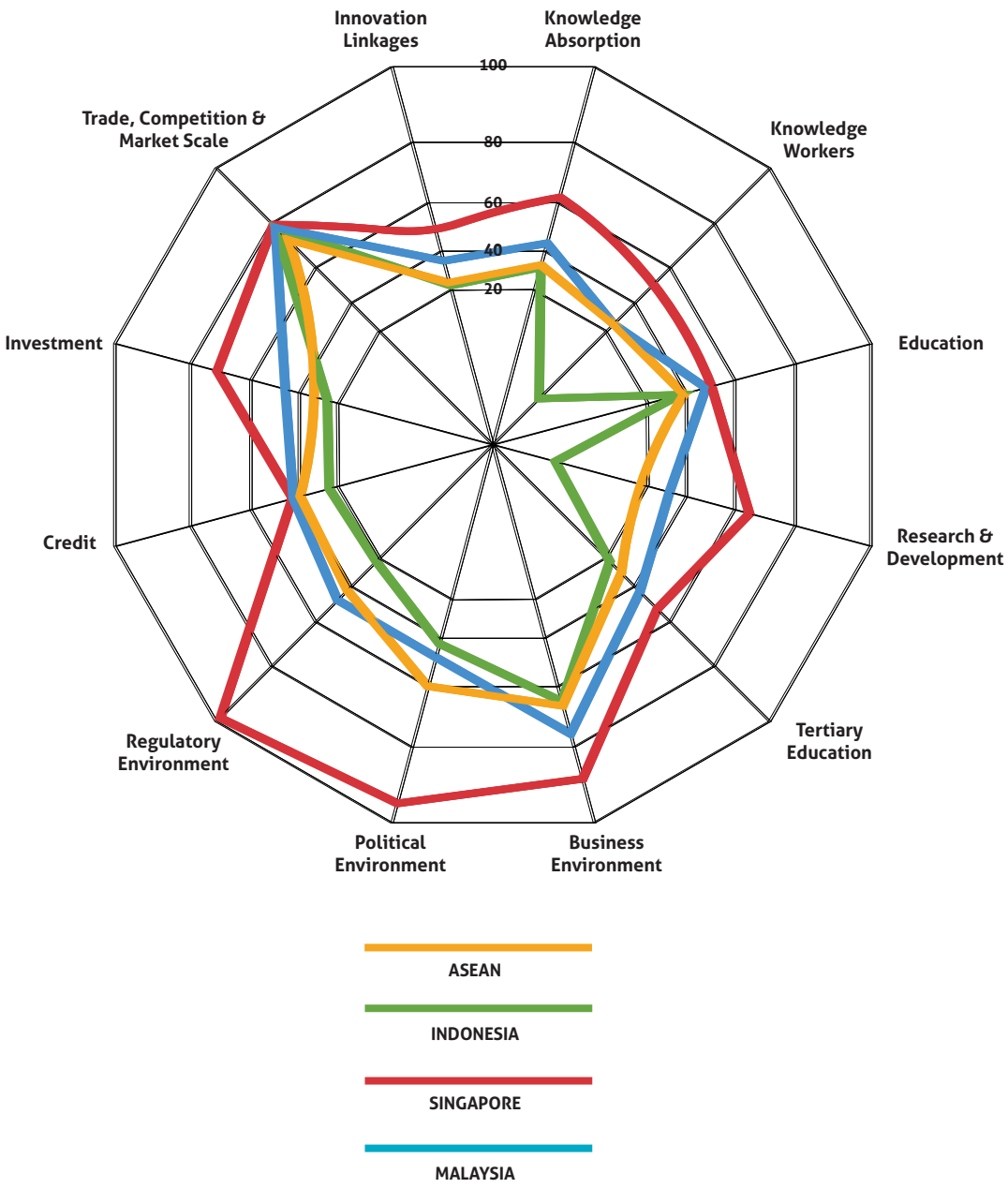
Main Agencies Involved in Innovation

- AIM
  - Platcom Ventures
- MaGIC
- MOSTI
- MDEC
- SME Corp

Corporates Innovation Efforts

- UEM + Google Malaysia (Project STAR)
- Touch `n Go Sdn Bhd`s tie up with Alibaba`s Ant Financial Services Group tobuild an e-wallet for the Malaysian market.
- Standards Malaysia, MACC launch anti bribery management system.

COBWEBB DIAGRAM



The Global Innovation Index (GII) is a cross-country performance assessment, compiled on an annual basis, which continuously seeks to update and improve the way innovation is measured.

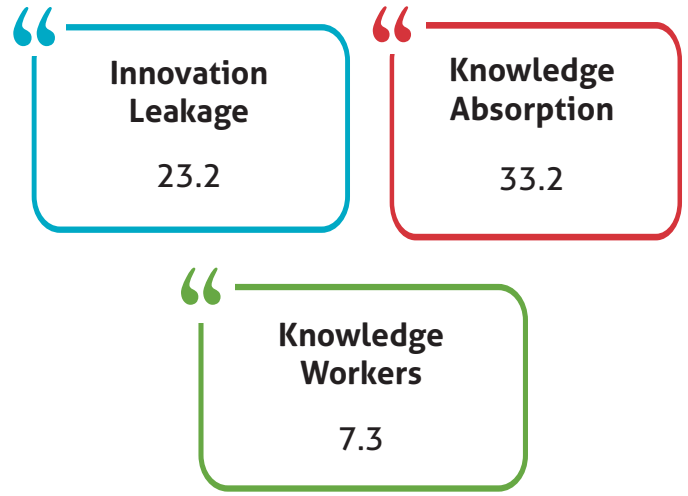
Assumptions made when this cobweb diagram was created -:-

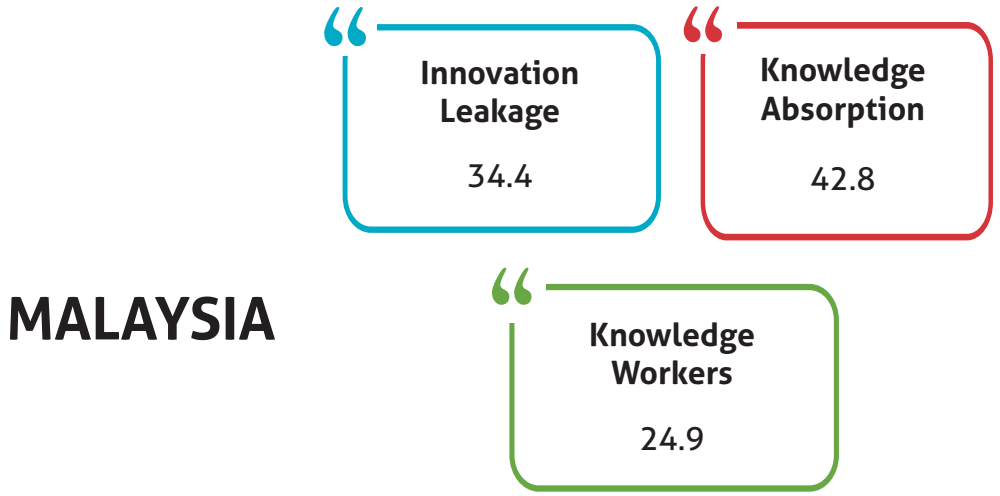
- Four out of the original seven GII pillars have been identified based on what is most relevant to entrepreneurship in Malaysia. We have also used GEM's and GEDI's indicators as a close reference when shortlisting the GII pillars.
- Each pillar is made up of three sub pillars. Each sub pillar's score is calculated based on a simple average score of all factors that influences each sub pillar. The drilldown of factors that makes up for each sub pillar can be found in 'Appendix Section' which is at the end of this report.
- The ASEAN index is the average GII scores of Indonesia, Malaysia, Singapore, Brunei, Cambodia, Philippines, Thailand and Vietnam. There were no data for Laos and Myanmar.

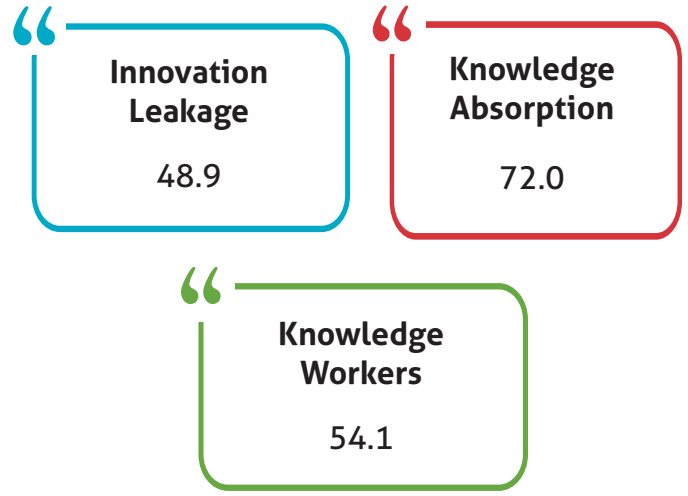
Before proceeding to go into further detail about our general study of the relevance of Global Innovation Indexes to entrepreneurship in Malaysia, our understanding of the original methodology of the Global Innovation Indexes is that it is made up of a compilation of data gathered from multiple online sources which includes the International Telecommunication Union, the World Bank and the World Economic Forum. This study is carried out by three parties which are Cornell University, INSEAD, and the World Intellectual Property Organization (WIPO). Their calculation of the GII is pretty much by taking a simple average of the scores in two sub-indices -, the Innovation Input Index and Innovation Output Index, which are composed of five and two pillars respectively. Each of these pillars describe an attribute of innovation, and comprise up to five indicators, and their score is calculated by the weighted average method.

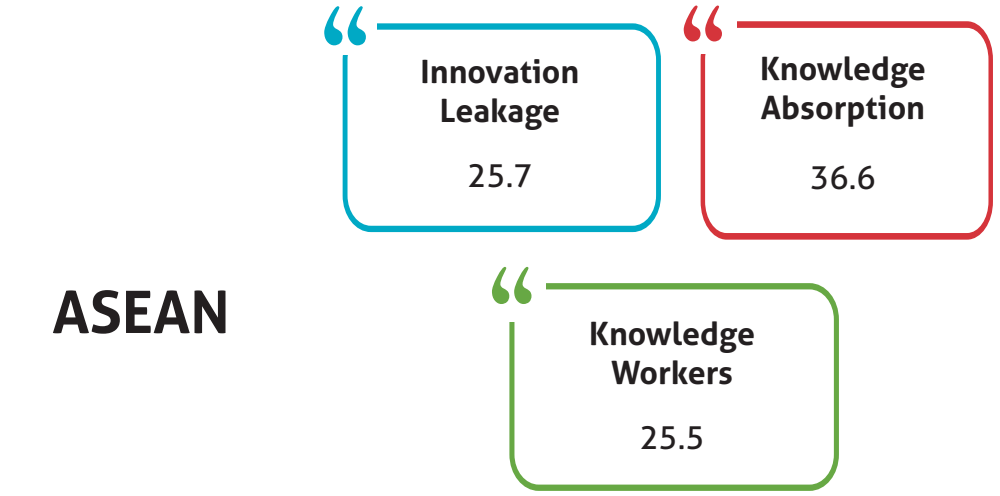
As of currently, the government of Malaysia has assigned the Malaysia Productivity Corporation (MPC) to be the lead agency to oversee any information on Malaysia pertaining to the Global Innovation Index.

The First Pillar: Business Sophistication









The first pillar that builds the entrepreneurial innovation state of Malaysia would be business sophistication. Business sophistication as defined by GII assesses how conducive firms are to innovation activity.

The GII pointed out that Malaysia ranks relatively well when it comes to university and industry research collaboration and also state of cluster (geographic concentrations of firms, suppliers, producers of related products and services, and specialized institutions in a particular field) development. These two factors are under the innovation linkages index.

As for the knowledge absorption sub pillar, the chunk of the score of this index is contributed by Malaysia importing high technology imports which Malaysia ranks number 1. However, it also seems that there is a need for more research talent in business enterprises in Malaysia which brought down the average of the index score.

It is also pointed out that the knowledge workers index in the country can be further improved. Firms can consider putting an emphasis into offering formal training for their employees and education institutions can look further into revamping the education syllabus to prepare more graduates to pave their career pathway into knowledge intensive services.

The Second Pillar: Human Capital & Research

INDONESIA

Education 37.0

Research & Development 8.1

Tertiary Education 7.3

MALAYSIA

Education 47.2

Research & Development 33.3

Tertiary Education 42.4

SINGAPORE

Education 52.9

Research & Development 66.5

Tertiary Education 53.7

ASEAN

Education 35.5

Research & Development 18.1

Tertiary Education 29.7

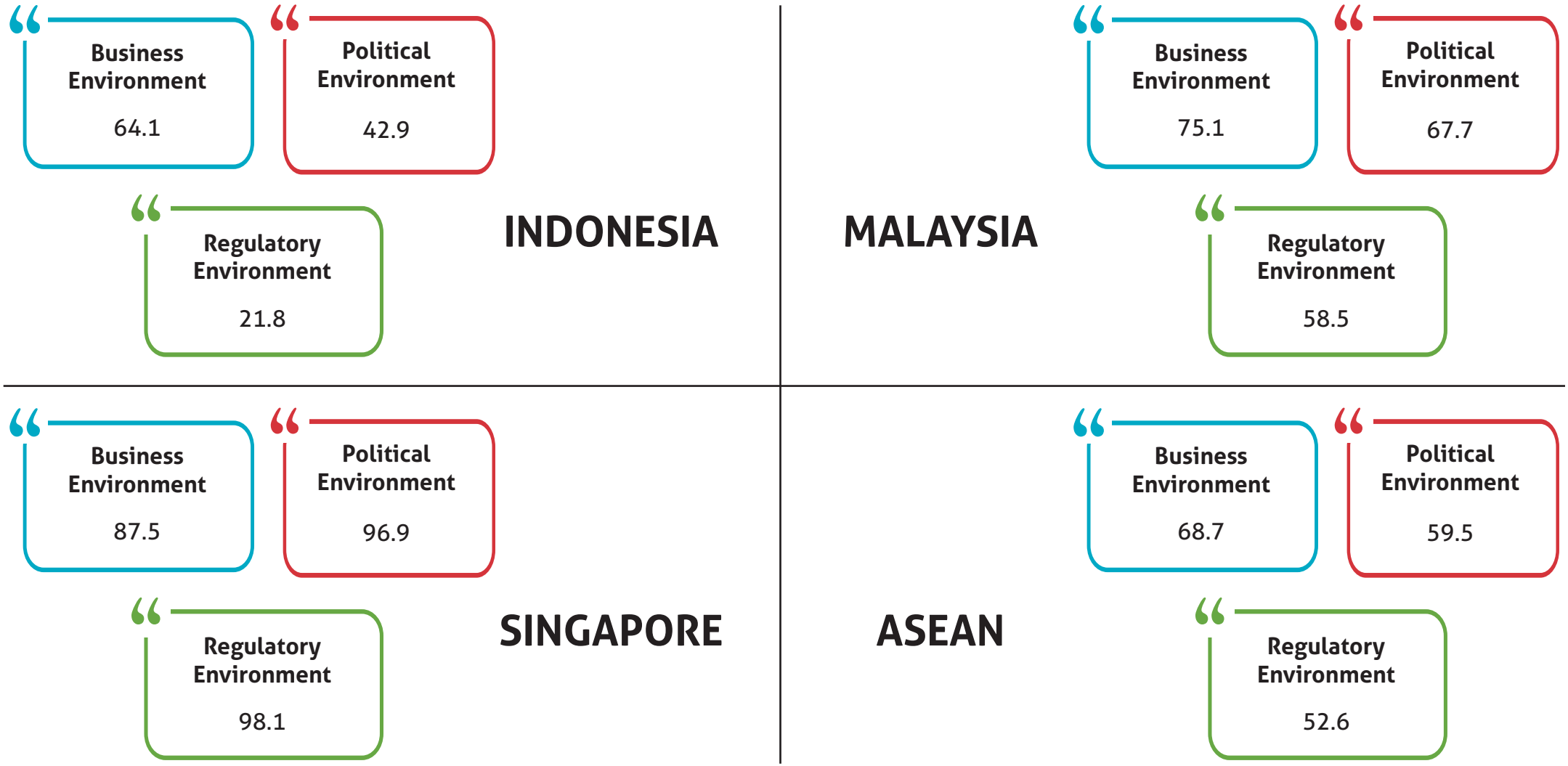
The second pillar that builds the entrepreneurial innovation state of Malaysia looks at human capital and research. Under this pillar, education, R&D and tertiary education indexes makes up for this pillar.

According to the GII, what brings the overall Malaysian education index score is mainly because of two factors which are the assessment in reading, mathematics, and science and government expenditure on education per pupil.

As for the R&D factor, Malaysia scores only half of Singapore's average score which shows a need to boost more innovation R&D efforts in the country.

However under the tertiary education index, Malaysia ranks well in terms of producing a number of graduates in science and engineering.

The Third Pillar: Institutions



The third pillar that builds the entrepreneurial innovation state of Malaysia looks at institutions which captures the institutional framework of a country. Under this pillar, it discusses the business, political and regulatory environment of each country.

Overall, Malaysia's business environment index score is close to Singapore's. The main factor that contributes to this index is the ease of starting a business.

As for the political and regulatory environment, Malaysia lags far behind compared to Singapore.

The Fourth Pillar: Market Sophistication

Lastly, the final pillar that is relevant to entrepreneurship looks at market sophistication. Its sub-pillars are structured around market conditions and the total level of transactions in the country.

For Malaysia, its credit index score ranks well and closely to Singapore's, which is contributed by the ease of getting credit to run a business such as through loans, purchases of non equity securities, and trade credits and other accounts receivable, that establish a claim for repayment.

Under the investment index, the average score was lowered due to the lack of data online on private equity deals, per deal, with information on the location of investment, investment company, investor firms, and funds, among other details. However, Malaysia scores well when it comes to the ease of protecting minority shareholders and also its market capitalization factors.

As for the trade, competition and market scale index, Malaysia's average score is on par with Singapore's and Indonesia's. The indicators that fall under this sub pillar are applied tariff rates, intensity of local competition and also domestic market scale.

MALAYSIA'S INNOVATION PERFORMANCE IN THE GLOBAL COMPETITIVENESS REPORT 17-18

STAGE 1 FACTOR-DRIVEN	TRANSITION FROM STAGE 1 TO STAGE 2	STAGE 2 EFFICIENCY-DRIVEN	TRANSITION FROM STAGE 2 TO STAGE 3	STAGE 3 INNOVATION-DRIVEN
GDP per capita (US$) thresholds*	**GDP per capita (US$) thresholds***	**GDP per capita (US$) thresholds***	**GDP per capita (US$) thresholds***	**GDP per capita (US$) thresholds***
<2,000	2,000 - 2,999	3,000 - 8,999	9,000 - 17,000	>17,000
Weight for basic requirements	**Weight for basic requirements**	**Weight for basic requirements**	**Weight for basic requirements**	**Weight for basic requirements**
60%	40% - 60%	40%	20% - 40%	20%
Weight for efficiency enhancers	**Weight for efficiency enhancers**	**Weight for efficiency enhancers**	**Weight for efficiency enhancers**	**Weight for efficiency enhancers**
35%	35% - 50%	50%	50%	50%
Weight for innovation and sophistication factors	**Weight for innovation and sophistication factors**	**Weight for innovation and sophistication factors**	**Weight for innovation and sophistication factors**	**Weight for innovation and sophistication factors**
5%	5% - 10%	10%	10% - 30%	30%

* For economies with high dependency on mineral resources, GDP per capita is not the sole criterion for determination of the stage of development.

Two criterias are used to allocate countries into stages of development. The first is the level of GDP per capita at market exchange rates. A second criterion is used to adjust for countries that, based on income, would have moved beyond stage 1, but where prosperity is based on the extraction of resources. This is measured by the share of exports of mineral goods in total exports (goods and services), and assumes that countries with more than 70 percent of their exports made up of mineral products (measured using a five-year average) are to a large extent factor driven. Countries that are resource driven and significantly wealthier than economies at the technological frontier are classified in the innovation-driven stage. Any country falling between two of the three stages are considered to be "in transition." For these countries, the weights change smoothly as a country develops, reflecting the smooth transition from one stage of development to another.

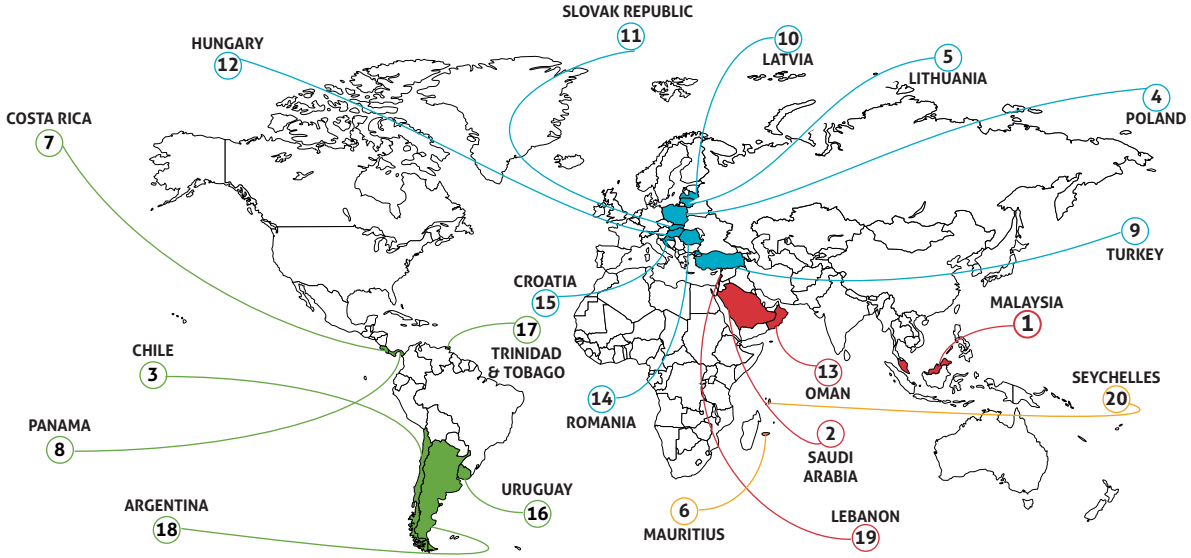
The Global Competitiveness Report 2017-2018 released by the World Economic Forum (WEF) ranks Malaysia 23rd out of 137 economies with a score of 5.17 (GCR 2016-2017: 5.16) compared to 25th position out of 138 countries previously. Among the Southeast -Asia economies covered by the GCI, only five have increased their score—albeit marginally—with Indonesia and Brunei Darussalam making the largest strides. Singapore, the Philippines, Cambodia, and Laos People's Democratic Republic have seen their scores decrease.

It is highlighted by WEF that Malaysia's rank at 23rd has consolidated its position to be among the world's top 25 most competitive economies leading the region of emerging economies, despite losing some ground this year following six years of improvement. Malaysia ranks in the top 30 of each in the majority of the 12 pillars, performing most strongly in Financial Market Development (16th), Goods Market Efficiency (20th) and Business Sophistication (20th).

With regards to innovation, the Technological Readiness pillar for Malaysia unfortunately has dropped by three places to 46th in 2017-2018's report, but the Business Sophistication pillar and Innovation pillar has managed to maintain its position standing at 20th and 22nd place respectively. After ranking all the 20 countries that falls under the transitional stage between the efficiency-driven to innovation stage of development, Malaysia is the most competitive economy and ranks the top among the other 19 economies that falls within the same stage category.

	WEIGHT FOR (BASIC REQUIREMENTS, EFFICIENCY ENHANCERS, INNOVATION AND SOPHISTICATION FACTORS) %	GCI 2017-2018 RANKING	RANKING IN TRANSITION STAGE
MALAYSIA	(39.1, 50, 10.9)	23	1
SAUDI ARABIA	(36.7, 50, 13.3)	30	2
CHILE	(28.6, 50, 21.4)	33	3
POLAND	(31.7, 50, 18.3)	39	4
LITHUANIA	(25.3, 50, 24.7)	41	5
MAURITIUS	(38.9, 50, 11.1)	46	6
COSTA RICA	(32.9, 50, 17.1)	47	7
PANAMA	(28.4, 50, 21.6)	50	8
TURKEY	(35.6, 50, 14.4)	53	9
LATVIA	(27.3, 50, 22.7)	54	10

	WEIGHT FOR (BASIC REQUIREMENTS, EFFICIENCY ENHANCERS, INNOVATION AND SOPHISTICATION FACTORS) %	GCI 2017-2018 RANKING	RANKING IN TRANSITION STAGE
SLOVAK REPUBLIC	(21.3, 50, 28.7)	59	11
HUNGARY	(30.6, 50, 19.4)	60	12
OMAN	(27.2, 50, 22.8)	62	13
ROMANIA	(38.8, 50, 11.2)	68	14
CROATIA	(32.3, 50, 17.7)	74	15
URUGUAY	(23.3, 50, 26.7)	76	16
TRINIDAD & TOBAGO	(24.1, 50, 25.9)	83	17
ARGENTINA	(31.2, 50, 18.8)	92	18
LEBANON	(34.2, 50, 15.8)	105	19
SEYCHELLES	(25.2, 50, 24.8)	107	20



ABOUT MaGIC

Malaysian Global Innovation & Creativity Centre

The Malaysian Global Innovation & Creativity Centre, a government initiative under the Ministry of Finance (MOF), was launched on 27 April 2014 by President of the United States Barack Obama and Prime Minister of Malaysia Dato' Sri Mohd Najib Tun Abdul Razak to nurture a vibrant entrepreneurial hub in the region and create an ecosystem that is collaborative and provide the necessary support to the development of entrepreneurs.

MaGIC ACTIVATE

MaGIC Activate is an open innovation challenge platform that supports the innovation of corporates and private sector players by connecting them with a global community of entrepreneurs. The platform is an initiative by MaGIC in partnership with Techstars Startup Program to foster collaboration between corporate innovators and startups/entrepreneurs in line with the promotion of Corporate Entrepreneurship Responsibility (CER) - a national initiative to encourage more private sector involvement in Entrepreneurship Development.

MaGIC IDEA

The Malaysian Global Innovation & Creativity Centre (MaGIC) established Impact Driven Enterprise Accreditation (IDEA) in July 2017. IDEA accredits impact driven enterprises, validating efforts to create a positive social change. Beyond just accreditation, certified Impact Driven Enterprises (IDEs) are listed on MaGIC's new online directory, allowing them to connect with potential customers and supporters, scale to new heights, and receiving the recognition they deserve.

An evolution from three successful regional accelerators by MaGIC, the Global Accelerator Program (GAP) focuses on supporting and developing local and global startups that have validated their ideas or launched a product/prototype with some traction, and have the potential to scale in the ASEAN region. Ideal startups would be less than three years old and focusing on the ASEAN market. Through the four-month full-time program, GAP aims to prepare startups with the knowledge and network to scale successfully in ASEAN through bringing down the borders in the ASEAN startup ecosystem and working together to capitalise on ASEAN's growth story. GAP also aims to create a large cluster of startups for investors seeking access to regional deal flow. Top startups are chosen based on three criterias: prospect to expand in the ASEAN market, potential of highly scalable products, and readiness for early stage investment. Ultimately, the goal of GAP is to focus on growing the startup ecosystem by creating startups that are investment-ready, where startups go on to raise private capital.

GLOBAL ENTREPRENEURSHIP COMMUNITY SUMMIT 2017

DESIGNING THE FUTURE

Launched in 2016 for the first time, the annual GEC summit is an initiative by the Ministry of Finance, Malaysia (MOF) in collaboration with the Ministry of Science, Technology and Innovation of Malaysia (MOSTI) and Ministry of Higher Education, Malaysia (MOHE), and organised by Malaysian Global Innovation & Creativity Centre (MaGIC). The summit aims to empower entrepreneurs around the world with ground-breaking ideas and collaborations to solve cross-border challenges, uncover new possibilities and develop revolutionary ideas and solutions, catalysing innovation.

Last year, under the theme "Reimagine the Future of Entrepreneurs", GECommunity 2016 was attended by approximately 6,000 participants and featured world renowned speakers such as Mike Walsh, CEO of Tomorrow, Bill Rancic, Joel Neoh, Founder of KFit as well as Emil Michael of Uber. In addition to engaging speakers and networking opportunities, GECommunity 2016 offered business matching, mentoring sessions and cluster discussions where 50 initiatives were formed across nine industry-specific cluster labs with participants and experts from over 60 countries.

GECommunity Summit 2017 - Designing the Future was attended by 15000 delegates made up of entrepreneurs, ecosystem influencers, and industry leaders. It became the convening ground for change makers, inspired by 15 different GEC Labs themes, 50 talk sessions, 330 exhibitors, 6 masterclasses and 20 keynote and panel discussions. Participants were also given an opportunity to receive mentoring from notable entrepreneurs.

MaGIC EDUC8

Educ8 by MaGIC Academy aims to bring quality entrepreneurship education and training in the Klang Valley, beyond the Klang Valley and throughout Malaysia. The program connects aspiring and seasoned entrepreneurs with MaGIC's network of endorsed educators to empower them through learning and equip them with the necessary knowledge and skills in their journey to success.

The programme is divided into 4 different levels (Grow, Learn, Initiate & Inspire) which caters to entrepreneurs at every growth stage and with varying skill levels.

GROW

Under Grow, this is catered to relatively seasoned entrepreneurs who wish to develop their existing business. Example of courses include Principle of Project Management, Facebook Ads 101 and Effective Leadership and Branding to Succeed.

LEARN

In Learn, courses here are to equip entrepreneurs with new skills and useful knowledge to develop a new business. Some of the popular courses include Basic Entrepreneurship, How to Set Up and Establish a Business in Malaysia, Growing into an Innovative Leader and Funding A Business.

INITIATE

For Initiate, teachings here are targeted at entrepreneurs who are looking to innovate their existing business. An example of an education session here is an Introduction to how Entrepreneurs can cultivate the study of Artificial intelligence and Virtual Reality in the Commercial World.

INSPIRE

The goal of Inspire is to nurture entrepreneurs to think creatively. Examples of creative courses include Design Thinking 101 which prepares entrepreneurs to planand utilise their strenghts effectively in their entrepreneurial journey.

MaGIC CORPORATE INNOVATION LAB

The Corporate Innovation Lab, which is a new initiative that is set to be launched next year would be a vertical partnership between MaGIC and multiple corporate partners from various industries. This partnership would not only allow entrepreneurs to gain more opportunity through the accessibility of industry markets and professional expertise, but also gives corporates an opportunity to bridge the gap between matching the right startups with partners, to provide solutions to solve a business problem that the corporate organisation is facing. Through this collaboration, MaGIC comes into place where it will assist corporates to design the accelerator programmes that they wish to run in their corporate innovation lab.
Some of the corporate partnerships that MaGIC has are with :

Mesiniaga IBM amaxMALL nem Microsoft

2018 - 2020 PLAN

Introducing **MaGIC 2.0**'s plans to be recognised globally as an organization that is able to nurture **EXPONENTIAL ENTREPRENEURS** contributing to **Economic & Social Impact**.

THE PLAN

- **The Big Idea** is MaGIC shifting from **teaching entrepreneurs** to **building and scaling entrepreneurs** across startups, corporate and government.
- MaGIC will move from having a **database of investors** to actively **cultivate, train and develop** a highly advanced investor ecosystem across Southeast Asia and beyond.
- MaGIC will **develop vertical programs** around **future economies** and connect corporates, startups, capital, and research to **build more high-impact, scaled-up companies**.

THE IMPACT

- The need to create **exponential entrepreneurs** that leverage on **exponential technologies, psychological tools** and the **power of crowd capital**
- Putting an emphasis and focus into innovation capital where **entrepreneurs TRULY get access to Markets and capital** i.e. VC money, angel investments or even Markets.
- Exploring new boundaries through **collaborative entrepreneurship** by **effectively bringing in other parts of the ecosystem together** and involving the: Corporates / SMEs / Government / Universities / Capital

ECONOMIC IMPACT

RM 1 BILLION

MEASURED BY:

- REVENUE
- INVESTMENT

SOCIAL IMPACT

RM 100 MILLION

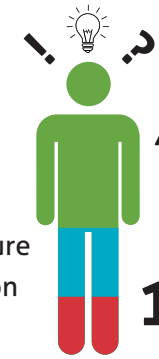
MEASURED BY:

- JOB VALUE CREATION
- REVENUE GENERATED
- CAPITAL INTO SOCIAL ECONOMY
- GOV CAST SAVING

MALAYSIAN INNOVATION LANDSCAPE

Top five organization's current KPIs pertaining to innovation:

- More innovative organisation culture
- Improvement of existing products
- Increased operations efficiency
- Increased revenue generated by new products / services
- Increased customer satisfaction



32% of organisations are unsure whether they can manage innovation

42% of organisations are relatively well equipped

16% of organisations are very well equipped

Surprisingly, 32% of our survey pool are not sure whether they have the right tools and processes to manage innovation.

Top five main technologies that an organization is focusing on at the moment

- BIG DATA
- ARTIFICIAL INTELLIGIENCE & MACHINE LEARNING
- CYBER SECURITY
- AUGMENTETED REALITY & VIRTUAL REALITY
- INTERNET OF THINGS

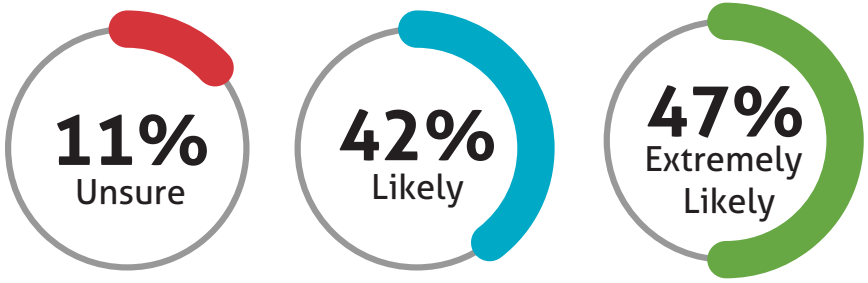
Out of all the technologies, Big Data came in as the tops whereas Cryptocurrency and 3D Printing were at the bottom. Other technologies that were part of the list were Autonomous Technology, Blockchain, Wearables, Drones, Robotics and Green Tech / Clean Energy.

**study is based on survey result carried out with MaGIC`s CER partners.*

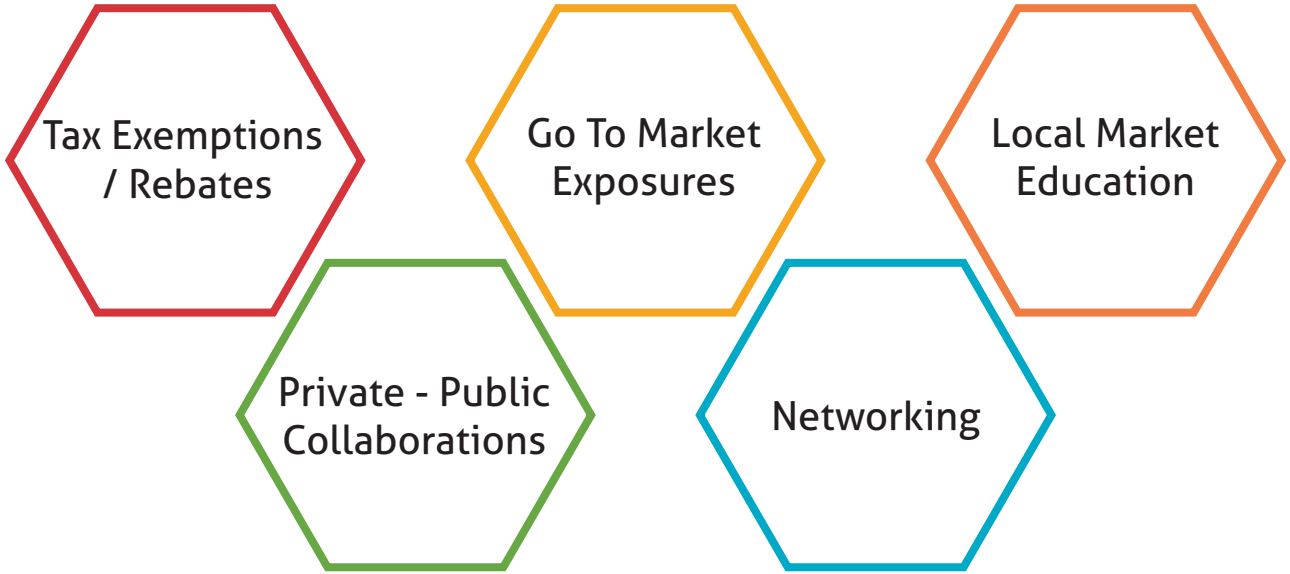
58%

have a dedicated person or team to strategically collect, observe, and analyse data for future forecasting. This shows that there is still a lack of emphasis on studying trends data amongst corporates in Malaysia.

Likelihood of significant technological disruptions in their industry that their organization foresees in the next 2 to 5 years



Top five things a corporate would like Malaysian Government to do or assist in achieving an organisation's innovation goals



**study is based on survey result carried out with MaGIC`s CER partners.*

We have also come to know that the main challenge an organisation is facing to innovate is due to:

CULTURAL ROADBLOCK

More than half of our corporate partner survey pool have said that it was difficult for the entire organisation to change culturally. One main reason for that is due to its leaders failing to communicate not only the rationale for the change, but the expected results of the change.

Top five main initiatives an organization has carried out to boost innovation

- Dedicated Innovation Team
- One-Off Startup Innovation Program
- Design Thinking
- Intrapreneurship Program
- Technology Education

From here, it shows that there is a general need for more talent in a corporate organisation to handle data.

26% has rated their organisation SLIGHTLY ABOVE AVERAGE

21% has rated their organisation EFFICIENT

42% has rated their organisation AVERAGE

**study is based on survey result carried out with MaGIC`s CER partners.*

SINGAPORE

5,607,280

2.0%
GDP

Innovation Driven
Economic Development Phase

2nd out of 138th
Global Competitive Index Ranking 2016/2017

7th out of 127th
Global Innovation Index Ranking 2017

SWITCH, TechInnovation, Innovation Labs World Conference & EmTech Asia
Notable Innovation Events

Major Industries

Emerging Industries

Notable Government Efforts to Boost Innovation

- GovTech and NUS team up to boost skills and innovation in public sector.
- Singapore Week of Innovation & Technology (SWITCH)
- Government to Partner Industries to Spark Innovation and Build Capabilities in a Smart Nation

Main Agencies Involved in Innovation

- SPRING
- IPOS
- SNDGG
  - GOVTECH
  - SNDGO

Corporates Innovation Efforts

- Track diabeties online? More high-tec solution on the cards for health, transport and finance.
- Huawei to partner firms and Infocomm Media Development Authority to grow ICT sector.
- MAS inks deal to boost fintech innovation.

INDONESIA

261,115,460

5.0%
GDP

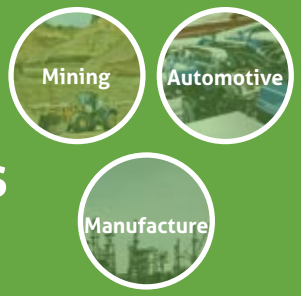
Efficiency Driven
Economic Development Phase

41st out of 138th
Global Competitive Index Ranking 2016/2017

87th out of 127th
Global Innovation Index Ranking 2017

Globelic Conference 2016, eGov Innovation Forum, I3E & Communic Indonesia
Notable Innovation Events

Major Industries



Emerging Industries

Notable Government Efforts to Boost Innovation

- Fully funded intensive training for Indonesian "technopreneurs"
- Forforging Public and Private Collaboration to Boost Indonesia's Digital Economy
- Creating more mutual benefits in Indonesia-Japan relations

Main Agencies Involved in Innovation

Directorate General of Strengthening Innovation (Ditjen Penguatan Inovasi)

Corporates Innovation Efforts

- DailySocial announces strategic partnership with Indonesian media, retail mogul MRA Group.
- Bank Indonesia stated that it will start testing the implementation of blockchain technology next year, according to several media reports.
- IoT and AI is set to be a strong platform for innovation technology in indonesia

CONCLUSION

According to the Global Innovation Index (GII), there were some things to note on what factors influences the ranking of each country or economy in the GII year on year :

- The actual performance of the economy in question;
- Adjustments made to the GII framework;
- Data updates, the treatment of outliers, and missing values; and
- The inclusion or exclusion of countries/economies in the sample.

Additionally, what will influence the quality of data obtained for each country/economy also involves the accuracy, completeness and timeliness of publicly available data for each economy. What will yield a detailed economy study that will paint a clear picture of an economy's innovation performance over time that creates an avenue for improvement will be based on these factors coupled with analytical work that will include influential innovation players and decision makers.

Thus, we personally believe that Malaysia's Global Innovation Index ranking for 2017 (37th out of 127 countries) can be further improved in the future than what it is currently. This could be achieved through collaboration with the relevant innovation actors both in the government and private sectors to make way for accurate and useful data to be more publicly accessible, which in return would allow the rest of the world to have a better reflection and understanding of our country's innovative state.

APPENDIX

Business Sophistication	Indonesia	Malaysia	Singapore	ASEAN
Index : Innovation linkages				
GERD financed by abroad	0	0.3	11.5	2.5
Joint venture/strategic alliance deals	1.3	29.3	59.5	17.4
Patent families filed in at least two offices	0	2.9	29.7	4.5
State of cluster development	57.6	69.5	69.5	54.3
University/industry research collaboration	57	70	74.5	50.1
Index : Knowledge absorption				
Foreign direct investment, net inflows	52.6	55.3	84.9	59.8
High-tech imports	27.2	100	85	47.4
ICT services imports	18.3	29.1	29.8	14.4
Intellectual property payments	25.7	17.3	100	26.9
Research talent in business enterprise	42.4	12.2	60.3	34.5
Index : Knowledge workers				
Employment in knowledge-intensive services	16.2	44.2	95.6	39.5
Females employed with advanced degrees	14.1	36	68.9	25.1
Firms offering formal training	5.7	19.9	0	21.1
Gov Eependiture on RD financed by business enterprise	0	8.8	69.4	32.7
Gov Eependiture on RD performed by business enterprise	0.6	15.7	36.6	8.9

Human Capital and Research	Indonesia	Malaysia	Singapore	ASEAN
Index : Education				
Assessment in reading, mathematics, and science	27.6	35.6	100	34.6
Expenditure on education	25.7	45.5	21.2	29.9
Government exp on education per pupil, secondary	7.4	19.9	17.4	11.6
Pupil-teacher ratio, secondary	74.7	84.8	76.4	55.6
School life expectancy	49.8	50.3	49.4	45.7
Index : Research and development (R&D)				
Global R&D companies, average expenditure top 3	0	35.5	64	17.8
Gross expenditure on R&D (GERD)	1.6	29.1	50.9	13.4
QS university ranking average score top 3 universities	29.8	44.4	70.3	25.3
Researchers	0.9	24.3	80.6	15.8
Index : Tertiary Education				
Graduates in science and engineering	41.4	66.5	0	36.2
Tertiary enrolment	26.8	22.4	61	30.7
Tertiary level inbound mobility	0.5	38.4	100	22

Institutions	Indonesia	Malaysia	Singapore	ASEAN
Index : Business environment				
Ease of paying taxes	69.3	79.2	91.8	69.8
Ease of resolving insolvency	46.5	62.5	74.3	56.7
Ease of starting a business	76.4	83.7	96.5	79.5
Index : Political Environment				
Government effectiveness	36.4	66.9	100	54.7
Political stability and absence of violence/terrorism	49.4	68.5	93.8	64.3
Index : Regulatory environment				
Cost of redundancy dismissal	1.4	57.5	100	63.7
Regulatory quality	36.7	61.9	100	51.6
Rule of law	27.4	56.2	94.4	42.5

Market Sophistication	Indonesia	Malaysia	Singapore	ASEAN
Index : Credit				
Domestic credit to private sector	14.8	50	51.8	34.8
Ease of getting credit	60	75	75	64.4
Microfinance institutions' gross loan portfolio	0.3	2.3	0	21.4
Index : Investment				
Ease of protecting minority investors	56.7	80	83.3	60.2
Market capitalization	17.5	55.3	93.4	31.3
Venture capital deals	1.9	5.3	39.7	7.7
Index : Trade, Competition & Market Scale				
Applied tariff rate, weighted mean	86.8	92.6	100	87.2
Domestic market scale	80.4	67.8	62	60.6
Intensity of local competition	71.2	73.1	76.9	68.9

Global Entreprenuership Monitor Index

- Entrepreneurial finance
- Government policies: support and relevance
- Government policies: taxes and bureaucracy
- Government e-ship programs
- E-ship education at school stage
- E-ship education at post school stage
- R&D transfer
- Commercial & legal infrastructure
- Internal market dynamics
- Internal market burdens or entry regulation
- Physical infrastructure
- Cultural & social norms

GEDI Index

- Tech Sector
- High Growth
- Risk Capital
- Cultural Support
- Product Innovation
- Start-up Skills
- Internationalization
- Opportunity Perception
- Competition
- Risk Acceptance
- Opportunity Startup
- Networking
- Process Innovation
- Human Capital

REFERENCES

Innovation Definitions and Fundamentals. Retrieved from https://www.innovationpolicyplatform.org/content/innovation-definitions-and-fundamentals

Economic Planning Unit, Prime Minister's Department. (2015, May 16). Eleventh Malaysia Plan. Retrieved from http://www.epu.gov.my/sites/default/files/11MP%20Summary%20BI.pdf

Akademi Sains Malaysia. (2017). Envisioning Malaysia 2050: A Foresight Narrative. Retrieved from https://mytn50.com/?language=eng

The World Bank. (2017). Retrieved from http://www.worldbank.org/en/country/ and http://data.worldbank.org/

ANZ Business Hub. (2017). Retrieved from http://www.anzbusiness.com/content/anz-superregional/expanding-offshore/country-insights/

Global Entrepreneurship Monitor GEM. (2016). Retrieved from http://www.gemconsortium.org/report

Ong, J. (2017, February 20). Singapore Budget 2017 aims for innovative economy, quality environment and inclusive society. Retrieved from http://www.channelnewsasia.com/news/singapore/singapore-budget-2017-aims-for-innovative-economy-quality-enviro-7595454

Schwab, K. (2016). The Global Competitiveness Report 2016-2017. Retrieved from http://www3.weforum.org/docs/GCR2016-2017/05FullReport/TheGlobalCompetitivenessReport2016-2017_FINAL.pdf

Jaswa, N. (2017, May 25). Govt's open data bank will boost innovation. Retrieved from http://www.freemalaysiatoday.com/category/nation/2017/05/25/govts-open-data-bank-will-boost-innovation-says-zahid/

Digital Free Trade Zone goes live on Nov 3. (2017, November 2). Retrieved from https://www.nst.com.my/business/2017/11/298317/%C2%A0digital-free-trade-zone-goes-live-nov-3

Abas, A. (2017, October 19). Najib unveils Malaysia's digital 'to-do list' to propel digital initiatives implementation. Retrieved from https://www.nst.com.my/news/nation/2017/10/292784/najib-unveils-malaysias-digital-do-list-propel-digital-initiatives

James, S. (2017, June 2). MaGIC Cyberjaya Signs with Cyberview Forming Futurise Centre. Retrieved from http://kr8tifexpress.com/article/667

Jamie. (2017, March 27). GovTech and NUS team up to boost skill & innovation in public sector. Retrieved from https://www.tech.gov.sg/Media-Room/Media-Releases/2017/03/GovTech-and-NUS-Team-Up-to-Boost-Skills-and-Innovation-in-Public-Sector
https://www.tech.gov.sg/TechNews/Innovation/2016/10/SWITCHing-on-Tech-Innovation

Jamie. (2017, May 24). Government to partner industries to spark innovation and build capabilities in a Smart Nation. Retrieved from https://www.tech.gov.sg/Media-Room/Media-Releases/2017/05/Government-to-Partner-Industry-to-Spark-Innovation-and-Build-Capabilities-in-a-Smart-Nation

British Embassy Jakarta. (2016, October 11). UK and Indonesia to sign agreements on technology and innovation. Retrieved from https://www.gov.uk/government/news/uk-and-indonesia-to-sign-agreements-on-technology-and-innovation

Forging Public and Private Collaboration to Boost Indonesia's Digital Economy. (2017, November 7). Retrieved from https://www.realwire.com/releases/Forging-Public-and-Private-Collaboration-to-Boost-Indonesias-Digital-Economy

Kurmala, A. (2017, October 31). Creating more mutual benefits in Indonesia-Japan relations. Retrieved from https://en.antaranews.com/news/113281/creating-more-mutual-benefits-in-indonesia-japan-relations

Basu, M. (2015, November 12). Three Indonesian e-government projects to watch. Retrieved from https://govinsider.asia/innovation/three-indonesian-e-government-projects-to-watch/

UEM collaborates with Google Malaysia. (2017, March 6). Retrieved from http://www.thestar.com.my/business/business-news/2017/03/06/uem-collaborates-with-google-malaysia/

Inn, K. T. (2017, July 25). Touch 'n Go gets exclusive e-wallet deal. Retrieved from http://www.thestar.com.my/business/business-news/2017/07/25/touch-n-go-gets-exclusive-ewallet-deal/

Shahar, F. (2017, October 27). Standards Malaysia, MACC launch anti-bribery management system. Retrieved from https://www.nst.com.my/news/nation/2017/10/295680/standards-malaysia-macc-launch-anti-bribery-management-system

Hio, L. (2017, July 21). Track diabetes online? More hi-tech solutions on the cards for health, transport, finance. Retrieved from http://www.straitstimes.com/singapore/track-diabetes-online-more-hi-tech-solutions-on-the-cards-for-health-transport-finance

Ying, W. S. (2017, July 19). Huawei to partner firms and Infocomm Media Development Authority to grow ICT sector. Retrieved from http://www.straitstimes.com/business/companies-markets/huawei-to-partner-firms-and-infocomm-media-development-authority-to-grow

Yahya, Y. (2017, September 16). MAS inks deal to boost fintech innovation. Retrieved from http://www.straitstimes.com/business/companies-markets/mas-inks-deal-to-boost-fintech-innovation

Maulani, A. M. (2017, October 31). DailySocial announces strategic partnership with MRA Group. Retrieved from https://e27.co/dailysocial-announces-strategic-partnership-mra-group-20171031/

Nabila, M. (2017, October 27). Bank Indonesia Siap Uji Coba Teknologi Blockchain Tahun Depan. Retrieved from https://dailysocial.id/post/bank-indonesia-siap-uji-coba-teknologi-blockchain-tahun-depan

Agustian, A. (2017, October 30). IoT dan AI Dinilai Akan Menjadi Landasan Kuat Inovasi Teknologi di Indonesia. Retrieved from https://dailysocial.id/post/iot-dan-ai-dinilai-akan-menjadi-landasan-kuat-inovasi-teknologi-di-indonesia

Dutta, M., Lanvin, B. & Wunsch-Vincent, S. (2017) The Global Innovation Index 2017. Retrieved from https://www.globalinnovationindex.org/gii-2017-report & https://www.weforum.org/reports/the-global-competitiveness-report-2017-2018