## Infrastructure opportunities in a disrupted world: Southeast Asia Report

**BRI Regional Business Survey 2020** 

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### 1. Introduction

#### About the report

BRI Regional Business Survey 2020 was conducted jointly by the Singapore Business Federation (SBF) and PricewaterhouseCoopers Advisory Services Pte. Ltd (PwC). This report outlines the key findings of the survey and provides insights to recent developments related to the regional infrastructure landscape, including the Belt & Road Initiative (BRI). It highlights the way forward for Singapore companies keen on leveraging regional infrastructure opportunities.

Infrastructure is one of the key drivers for Southeast Asia's economic growth while mega initiatives like China's BRI provide regional growth opportunities for Singapore companies. However, today most businesses stand disrupted thanks to the unprecedented global pandemic COVID-19, aside from the ongoing trade conflict between the US and China.

Aimed at better equipping Singapore based companies, the BRI Regional Business Survey this year broadened its focus to cover regional infrastructure opportunities. The survey respondents this year shared their view on regional infrastructure, social and economic opportunities including power, energy, transport, water, wastewater, waste, urban development, digital, technology, healthcare and pharmaceutical sectors in Southeast Asia.

The survey spanning August and September 2020 was conducted online. Senior representatives from organisations across a broad range of sectors and geographical locations were exclusively invited, to share their thoughts on the geopolitical situation, the current investment climate, and challenges and issues they face, in pursuing infrastructure opportunities across the region.

Despite the disruptions, business leaders from ASEAN as well as from around the world remain positive about the regional infrastructure outlook and many Singapore organizations continue to successfully participate in the regional infrastructure space.

The report follows a series of BRI related publications<sup>1</sup> led by SBF over the past years, in light of the Federation's successful initiatives around connecting Singapore businesses with the regional infrastructure opportunities<sup>2</sup>.

#### **Survey Respondents:**

The respondents are grouped based on the location of their headquarters -- Singapore respondents, Southeast Asia (SEA) respondents (excluding Singapore), and Other respondents (with HQ in China, Japan, Europe, Australia and rest of the world). The SEA respondents and Other respondents are collectively referred to as Non-SG respondents.

Please note that this survey was conducted before the coup in Myanmar in February 2021, therefore it might not reflect the market's appetite to Myanmar risks in a post-coup environment.

<sup>&</sup>lt;sup>1</sup> Up and Running? Opportunity and Risk Along China's Belt and Road (2017) by Economist Corporate Network; Delving into the BRI: How Regional Players Plan to Leverage on BRI Business Opportunities" (2019) jointly produced by SBF and PwC Singapore.

<sup>&</sup>lt;sup>2</sup> BRI Connect with Chinese Enterprises Association (2017)

#### **Background - all respondents**

Other

17%



#### Current involvement in SEA infrastructure opportunities



#### Singapore respondents' current involvement in SEA infrastructure opportunities



### 2. Infrastructure landscape in Southeast Asia

Southeast Asia has been rapidly growing over the past five years. With the region's combined gross domestic product of over USD 2.4 trillion, Southeast Asia is the seventh-largest ranked economy in the world and is expected to become the world's fourth largest economy by 2050. Such exponential economic growth will need to be backed by approximately USD 3.1 trillion of infrastructure investments from 2016 to 2030<sup>3</sup>.

To meet such strong demand for infrastructure, many Southeast Asian governments have carried out national infrastructure development plans to organise the efforts of infrastructure development.

Countries	Philippines	Indonesia	Myanmar	Malaysia	Thailand
Infra development program	• Build, Build, Build program	<ul> <li>National Infra Development program (2020 – 2040)</li> </ul>	<ul> <li>National Project Bank</li> <li>Yangon Project Bank</li> </ul>	• 11 <sup>th</sup> Malaysian Plan (2015 – 2020)	• Eastern Economic Corridor (EEC)
Program includes	<ul> <li>USD 16.9 billion</li> <li>75 flagship projects</li> </ul>	• USD 412 billion, 25 projects	<ul> <li>129 projects across the country</li> <li>80 projects under public- private- partnership (PPP) model</li> </ul>	<ul> <li>Roadmap to develop transport and logistics sector, improve digital connectivity and water network</li> </ul>	• Estimated USD 49.8b to develop three Eastern provinces (Chonburi, Rayong, and Chachoengsao) into a leading ASEAN economic zone
Focused sectors	• Airport, urban development, rail, road, power	<ul> <li>Airports, highways, affordable housing and power</li> </ul>	<ul> <li>Urban development, power and transport</li> <li>Urban development, industrial, power, utilities and transport</li> </ul>	• Transport, logistics, ICT, water	• Airport, port, rail

Pan-regional collaboration is a common approach that Southeast Asian governments take to develop infrastructure. For example, in 2015, the Association of Southeast Asian Nations (ASEAN) announced ASEAN 2025, a vision to develop ASEAN in order to realise further consolidation, integration and stronger cohesiveness as a Community.

ASEAN 2025 includes ASEAN Connectivity 2025, the master plan to improve the physical, institutional and people-to-people connectivity across ASEAN countries. In 2019, a list of 19 prioritised projects worth USD 15 billion was announced under the Master Plan. The 19 projects spanning various ASEAN countries cover transport, energy, information and communication technology sectors<sup>4</sup>. However since the announcement, the development progress of the 19 projects varies. Recently in January 2021, the KL-Singapore High Speed Rail project, a key transport project under the Master Plan, has been terminated. Another example is the ASEAN power grid (APG), an ambitious project to interconnect the power systems in the region and establish multilateral power trading.

<sup>&</sup>lt;sup>3</sup> Asian Robotics Review, "\$321B in ASEAN Infrastructure Funding to Drive Automation", https://asianroboticsreview.com/home54-html <sup>4</sup> ASEAN Secretariat News, Jun 10 2019, "ASEAN identifies potential infrastructure projects", https://asean.org/asean-identifies-potentialinfrastructure-projects/

Collaboration amongst selected ASEAN members on specific agenda have also been seen. For instance, the Brunei Darussalam-Indonesia-Malaysia-Philippines East ASEAN Growth Area (BIMP-EAGA) is a cooperative initiative established in 1994 to spur development in remote and less developed areas of the participating countries<sup>5</sup>. BIMP-EAGA Vision 2025 has identified 57 Priority Infrastructure Projects (PIPs) with estimated project cost of USD 21.4 billion in transport, energy and urban development sectors <sup>6</sup>.

On top of the ASEAN government's efforts, the Belt & Road Initiative is a key regional initiative that is expected to boost infrastructure spending in Southeast Asia. First introduced in 2013, the BRI includes a series of development and investment initiatives aimed at improving physical infrastructure and regional integration. It also boosts trade and stimulates economic growth across Asia, Europe and the Middle East. Southeast Asia is a key region under the BRI; it is estimated that USD 200 billion has been invested in Southeast Asia under the BRI during 2013 - 2018.<sup>7</sup> Traditionally BRI projects were mainly in the power, transport, urban development and SEZ sectors. Recently, the COVID-19 pandemic has accelerated developments under Digital Silk Road and Health Silk Road.

Such development efforts on the country level and regional level represent great potential to be involved in infrastructure opportunities for investors, contractors, financers and professional services providers, who are key targets of this survey.

<sup>&</sup>lt;sup>5</sup> BIMP-EAGA, https://www.bimp-eaga.asia/about-bimp-eaga/what-bimp-eaga/

<sup>&</sup>lt;sup>6</sup> BIMP-EAGA 2025 Vision, https://bimp-eaga.asia/sites/default/files/publications/bimp-eaga-vision-2025.pdf/

<sup>7</sup> Murray Hiebert, 3 September 2020, "China's Belt and Road Initiative faces huge challenges in Southeast Asia"

# 3. Singapore organisations' involvement in regional infrastructure opportunities

The Southeast Asia infrastructure market presents opportunities for Singapore organisations to be involved from the conceptualisation stage, proposal and bidding, to construction and operational stage. Some examples of the current and pipeline infrastructure opportunities in Southeast Asia are highlighted below (Exhibit 14).

#### Exhibit 14: Examples of current and pipeline infrastructure projects in ASEAN



In this survey, most **Singapore respondents are involved in infrastructure opportunities located in Vietnam** (57%), followed by the **Philippines** (43%), **Indonesia** (43%), **Singapore** (43%), **Malaysia** (36%) **and Myanmar** (36%) (Exhibit 15). For Singapore respondents who are not involved in any regional infrastructure opportunities currently, the perceived investment destinations are largely in line with realized opportunities, except for Vietnam which ranked much lower on their investment radar.

#### Exhibit 15: Singapore respondents' involvement in regional opportunities

Question: My organisation is / has been involved in regional infrastructure opportunities in the following country(ies): (*No. of respondents – 14 Singapore companies who are involved in regional opportunities*)

Question: If my organisation was involved in regional infrastructure opportunities, we would most likely be in the following country(ies): (*No. of respondents – 28* Singapore companies who are not involved in regional opportunities)



**Power generation, both traditional and renewable energy, have the greatest involvement by Singapore companies** (Exhibit 16). This is aligned with the rapid growth seen in the energy market in SEA, and renewable energy as an asset class. According to the World Economic Forum, SEA's growth in electricity demand is among the fastest in the world.<sup>8</sup> Infrastructure opportunities in sectors such as waste management, water & wastewater, roads, smart cities, urban development, industrial estates and special economic zones (SEZ) are also heavily participated by Singapore respondents.

For Singapore respondents who are currently not involved in regional infrastructure opportunities, opportunities are perceived to be available in sectors including smart cities, urban development, industrial estates, SEZ, roads, waste management and renewable energy (Exhibit 16). Only 4% view non-renewable energy as an attractive sector for involvement, reflecting a major shift in interest away from non-renewable sectors. Furthermore, more than 28% of Singapore respondents who are currently not involved in regional infrastructure opportunities see opportunities in the technology and digital sector. This could indicate a growing interest among Singapore companies to invest regionally in these sectors.

<sup>&</sup>lt;sup>8</sup> Katharine Rooney, "Can Southeast Asia keep up with growing energy demand?", World Economic Forum, 2 December 2019

#### Exhibit 16: Sectors where Singapore respondents are involved and interested

Question: My organisation is / has been involved in regional infrastructure opportunities in the following sector(s): (*No. of respondents – 14 Singapore companies who are involved in regional opportunities*)

Question: If my organisation was involved in regional infrastructure opportunities, they would most likely be in the following sector(s): (*No. of respondents – 28 Singapore companies who are not involved in regional opportunities*)



**Singapore respondents have mostly partnered with Chinese entities or investors** (57%) or fellow Singapore entities or investors (50%) in their current infrastructure opportunities (Exhibit 17). In such partnerships, Singapore respondents believe they are mainly in the role of bringing relevant experiences, capabilities, international standards and local context into the opportunities.

#### Exhibit 17: Singapore companies' partners

Question: The partners of my organisation's current involvement in regional infrastructure opportunities include: (*No. of respondents – 14 Singapore companies who are involved in regional opportunities*)



Over a third of non-SG respondents are currently partnering with Singapore companies, and 30% expect to partner with Singapore companies within the next three years (Exhibit 18). This shows that **Singapore companies are well recognised and well-positioned among both SEA respondents and respondents outside of SEA to bring value to regional infrastructure opportunities.** 

#### Exhibit 18: International investors' partnering with Singapore companies

Question: In regard to the partnership with Singapore companies in regional infrastructure opportunities, my organisation is: (No. of respondents – 47 non-SG based respondents who are involved in regional opportunities)



#### Case Study: New Yangon City Development, Myanmar

This is an example of a regional infrastructure project involving urban and industrial estate development, where Singapore organizations have been involved in multiple levels and aspects.

The Yangon Regional Government (YRG) launched the New Yangon City Project in March 2018 aimed at meeting the needs of Yangon's growing population, as well as generating more job opportunities\*\*. Phase 1 Stage 1 of the project will be developed on the opposite bank of Kyeemyindaing Township, Yangon. The project will be implemented by New Yangon City Development Company Ltd (NYDC), a wholly owned subsidiary of YRG.

The estimated cost for Phase 1 infrastructure is roughly USD 800 million, including 23 sqkm of resettlement areas, a bridge giving access to the new city, artery roads, 3 sq km of industrial estates, power facilities, and water and wastewater treatment plants.

Singapore organizations have been involved in the project across multiple levels. Infrastructure Asia, as a government agency, has provided Government-to-Government (G2G) assistance to NYDC on project and bids evaluations. Frontiir, backed by Singapore-based Ascent Capital Partners, whose investors include Temasek, has been selected as the preferred developer of the Cyber Connectivity project. In addition, a number of professional services providers have advised on both the public and private side, including AECOM (master planner), Allen & Gledhill (legal services), Rajah & Tann (legal services) and PwC (financial advisor). As the

project is still in an early stage with the NYDC challenge process expected to start soon, it could present more opportunities for Singapore organizations to be involved.

Other international players involved in this project include Chinese state-owned China Communications Construction Company Ltd (master development preferred developer), IGL Consortium (Natural gas supply and distribution developer), PTT Group (Power supply and distribution preferred developer), Roland Berger (Tender advisor).

\*\*Source: NYDC

## 4. Recent developments and their impact on infrastructure opportunities

In recent years, infrastructure investments in Southeast Asia are influenced by two major developments – the US-China trade conflict and the COVID-19 pandemic.

#### The US-China trade conflict and geopolitical developments

The US-China trade conflict started in January 2018 when the US government imposed wide-ranging tariffs on imported goods from China, including solar panels and washing machines. In May 2019, trade talks between the two countries broke down, with the US and China both increasing tariffs on imports from each other. In January 2020, the US and China signed a "Phase one" trade deal, and in August 2020, talks have been held where both sides reviewed the Phase One trade deal and agreed to continue driving its implementation.<sup>9</sup> Furthermore, since October 2019, the US has imposed economic sanctions on around 100 Chinese companies. The companies affected include tech giants Huawei and Qihoo 360, and state-owned infrastructure EPC contractors and investors China Communications Construction Company and Union Development Group, who have been active in the Southeast Asia infrastructure space.<sup>10</sup>

#### Impact:

The geopolitical developments have boosted the trade relationship between China and ASEAN. In the first half of 2020, ASEAN became China's largest trading partner, representing 14.7% of China's overall trade. This is largely due to the trade of various products affected by the trade conflict, e.g. chips, being redirected to ASEAN and rerouted through ASEAN.<sup>11</sup> Furthermore, Chinese companies sought to set up production hubs in ASEAN countries, and many of these production facilities rely on raw materials and components from China.

#### COVID-19

The COVID-19 pandemic has had a profound impact on the world's economy. With one third of the world's population under lockdown in early 2020, followed by gradual relaxation measures, the movements of people and goods have been significantly restricted. Short-term economic slowdown is expected in many countries, with some countries even expecting economic recessions. In September 2020, Asian Development Bank (ADB) has lowered the 2020 estimated economic growth for ASEAN to -3.8%, although a rebound in 2021 is expected with the ASEAN economic growth estimated to be 5.5%. <sup>12</sup>

#### Impact:

Although the impact of the pandemic on the ASEAN economy is still evolving, there are several key areas where COVID-19 is expected to affect Southeast Asia infrastructure development, including:

**Shifting supply chain:** The pandemic has significantly disrupted the global supply chain. As many investors are already looking to shift part of supply chain activities outside of China under the US-China trade conflict, the pace of such a trend is expected to be accelerated by COVID-19.<sup>13</sup> Many investors, including Chinese investors, are looking to build manufacturing hubs in Southeast Asia due to the region's low production cost and strong supply chain linkages with China and other regions. The trend is expected to be further accelerated with the recently signed Regional Comprehensive Economic Partnership ("RCEP").

<sup>&</sup>lt;sup>9</sup> Dezan Shira & Associates, 25 August 2020, "The US-China Trade War: A Timeline"

<sup>&</sup>lt;sup>10</sup> South China Morning Post, 16 Sep 2020, "US sanctions Chinese company over Dara Sakor project in Cambodia"

<sup>&</sup>lt;sup>11</sup> Nikkei Asia, 15 July 2020, "ASEAN becomes China's top trade partner as supply chain evolves"

<sup>&</sup>lt;sup>12</sup> ADB, September 2020, "Asian Development Outlook 2020 Update: Wellness in Worrying Times"

<sup>&</sup>lt;sup>13</sup> Mattias Hedwall, "The ongoing impact of COVID-19 on global supply chains", World Economic Forum, June 22 2020, https://

https://www.weforum.org/agenda/2020/06/ongoing-impact-covid-19-global-supply-chains/

**Accelerated technology adoption to boost the digital economy:** Even before the pandemic, the outlook of ASEAN's digital economy was positive. The value of internet economy in Southeast Asia hit USD 100 billion for the first time in 2019, and the value was expected to grow to USD 300 billion by 2025<sup>14</sup>. The pandemic has significantly reshaped ASEAN's digital landscape, with many governments and businesses being forced to digitise their operations. Consumers are leveraging telecommuting technologies, e-commerce and online education to satisfy their daily needs. With such fundamental change in consumers, businesses and governments' behaviour to adopt technologies into their daily lives, the digital sector in ASEAN is expected to grow exponentially<sup>15</sup>

**Long-term demand for healthcare**: The pandemic has imposed significant pressure on the public healthcare system across Southeast Asia, and many private hospitals are also providing subsidized care to public patients. On the other hand, due to fear of the virus and travel restrictions, patients have postponed their outpatient visits and travel tourism. As of April 2020, private hospitals catering to non-COVID patients have seen occupancy levels drop to 30 - 40%, and the number of elective procedures has dropped by 40-70%.<sup>16</sup> With the pandemic prolonging, telemedicine and virtual care have emerged as a new approach to provide healthcare services while keeping both patients and caregivers safe. In the long run, the pandemic has raised the public's health awareness, and the demand for healthcare services and related services are expected to grow.

**Continued strong demand for green and sustainable infrastructure development:** Green and sustainable infrastructure development has been in discussions long before the pandemic, although ASEAN countries' efforts have been relatively limited by the attempt to achieve equality and economic development.<sup>17</sup> As ASEAN has some of the countries who are ranked as most severely affected by climate change, the climate action and development of infrastructure in a sustainable way remains critical over the next decade. Furthermore, investments into green and sustainable infrastructure are expected to drive the near-term economic recovery and job creation.

<sup>&</sup>lt;sup>14</sup> Google, Temasek, Bain & Co., "e-economy SEA 2019: Swipe up and to the right: Southeast Asia's \$100 billion Internet economy," https://www.blog.google/documents/47/SEA\_Internet\_Economy\_Report\_2019.pdf /

<sup>&</sup>lt;sup>15</sup> Ayman Falak Medina, "Investing in ASEAN's Digital Landscape: New Opportunities after COVID-19", *ASEAN Briefing*, September 25, 2020, https://www.aseanbriefing.com/news/investing-in-aseans-digital-landscape-new-opportunities-after-covid-19/

<sup>&</sup>lt;sup>16</sup> John Wong, Zarif Munir, Anurag Agrawal, "COVID-19: an opportunity in crisis for ASEAN health care providers", *BCG*, May 4, 2020, https://www.bcg.com/en-sea/covid-19-an-opportunity-in-crisis-for-asean-health-care-providers//

<sup>&</sup>lt;sup>17</sup> Johanna Son, "Will ASEAN end up going greener after COVID-19?", *Heinrich Boll Stiftung*, August 24, 2020,

https://www.boell.de/en/2020/08/24/will-asean-end-going-greener-after-covid-19//

### 5. Key Survey findings

### I. Most organisations remain optimistic about regional infrastructure opportunities despite impact of the US-China conflict and COVID-19 crisis

Despite expected delays in infrastructure project procurement and development following the outbreak of the COVID-19 pandemic, more than two out of five (41%) respondents currently involved in regional infrastructure opportunities remain interested in regional infrastructure opportunities, while 26% indicated that they are more willing to be involved or their involvements is expected to be accelerated by the recent developments (Exhibit 19).

Respondents who are currently not involved in regional infrastructure opportunities take on a relatively more conservative approach towards new business endeavours. A quarter (26%) of the respondents indicated that they continued to be interested although expect some delay to participating in projects, while another 26% indicated they are undecided about their future involvement in the region. On a positive note, 30% indicated that the recent developments have no relevant influence, while 12% believe their willingness to be involved is stronger or expected to be accelerated.

In both cases, only 2-4% of respondents indicated that they have suspended or intend to suspend their involvement in the regional infrastructure opportunities, indicating the continued strong interest in the regional infrastructure sector, and that the long-term impact of the recent developments is minimal.

#### Exhibit 19: Impact of US-China and Covid-19

Question: How has the recent developments, including the US-China geopolitical situation and/or COVID-19, influenced my organisation's involvement or intention to be involved in regional infrastructure opportunities? (*No. respondents – 61 currently involved; 50 currently not involved*)



# II. Organisations are prioritising focus on commercial viability of the infrastructure projects, and manufacturing and supply chain activities in SEA

Commercial viability emerged on top of investors' list of priorities (47%), followed by manufacturing and supply chain activities in Southeast Asia (28%) (Exhibit 20). The recent developments have accelerated the pace of digitisation, and investors are also looking for opportunities that have adopted or have the potential to adopt digital technologies (24%), as well as opportunities directly in the digital sector (20%).

Nearly a quarter (23%) of respondents stated that the recent developments have not changed their investment strategies and priorities, further indicating the limited long-term impact of the recent developments.

#### Exhibit 20: Impact of the recent developments on regional infrastructure investment strategy

Question: Given the recent developments, which investment strategies have / will become my organisation's priorities? (*No. of respondents – 111 all respondents*)



# III. Past experiences, ability to introduce international best practices, and familiarity with local markets are key to success in procuring and executing regional infrastructure projects

The majority of Singapore respondents (71%) believe that past experiences in relevant projects are key to successful involvement in regional infrastructure opportunities, while 64% noted that the ability to introduce international best practices and standards are important (Exhibit 21). Over half (57%) of them indicated familiarity with the local market or business relationships in the local market are the key success factors. In addition, 43% of the respondents believe they have brought cost effectiveness and technology expertise to the regional infrastructure opportunities.

#### Exhibit 21: Key success factors

Question: The key success factor(s) for my organisation's involvement in regional infrastructure opportunities include: (*No. of respondents – 14 Singapore companies who are involved in regional opportunities*)



# IV. Top concerns of Singapore companies include bankability of regional infrastructure opportunities, lack of partners to jointly bid for regional opportunities and lack of information on potential opportunities

Nearly half (45%) the Singapore respondents flagged concerns over bankability when involved in regional infrastructure opportunities (Exhibit 22). The bankability concerns could stem from the commercial structures and risk allocation not being in line with international practices, which have been seen in many regional opportunities. Specifically among the bankability concerns, about a fifth (17%) of the respondents faced lack of access to government agencies or international institutions that can provide financial guarantee to projects. Other key challenges Singapore respondents face include lack of access to opportunity partners (43%), lack of relevant information (43%), lack of local presence or understanding of local market (33%) and reputational or geopolitical risks (29%).

#### Exhibit 22: Key challenges

Question: The main challenge(s) / obstacle(s) for my organisation's involvement in regional infrastructure opportunities include: (*No. of respondents – 42 Singapore respondents*)



# V. Singapore, Indonesia, Myanmar<sup>18</sup>, Vietnam emerged as top destinations offering infrastructure opportunities. Top focus areas include smart cities and urban development aside from power generations

Looking forward, Singapore investors mostly see opportunities in Singapore (64%), Indonesia (50%), Vietnam (48%) and Malaysia (48%) over the next 3 years (Exhibit 23). This is much in line with prior year's survey results. For non-SG respondents, Myanmar (48%), Indonesia (46%), Philippines (39%), Singapore (33%) and Vietnam (29%) are the prioritised investment destinations.

Notably 48% of non-Singapore respondents are interested in exploring opportunities in Myanmar<sup>18</sup> over the next three years, much higher than Singapore respondents (36%). Singapore companies can explore Myanmar infrastructure opportunities in the near future, especially with the possibility of partnering with other international investors.

#### Exhibit 23: Country focus in future

Question: My organisation's country focus for regional infrastructure opportunities over the next 3 years are: *(No. of respondents – 42 Singapore respondents; 69 Non-SG respondents)* 



<sup>&</sup>lt;sup>18</sup> Please note this survey was conducted before the coup in Myanmar in February 2021, therefore it might not reflect the market's appetite to Myanmar risks in a post-coup environment.

Further, when asked about the focus sector for regional infrastructure investments over the next 3 years, all respondents pointed at opportunities in smart cities, urban development, industrial zones, SEZs and renewable energy (Exhibit 24), indicating significant potential in these sectors across the region. Notably, although historically Singapore respondents' involvement in the regional technology / digital sector was relatively low (Exhibit 16), technology is among the top three sectors where Singapore respondents see opportunities over the next 3 years.

#### Exhibit 24: Sector focus in future

Question: My organisation's sector focus for regional infrastructure opportunities over the next 3 years are: (*No. of respondents – 42 Singapore respondents; 69 Non-SG respondents*)



#### VI. Singapore entities emerged as most preferred partners. Local market knowledge and financing capabilities are key value adds organisations look for in Singapore partners

In order to participate in regional infrastructure opportunities, Singapore respondents are most keen to partner with peer Singapore entities and investors (67%), followed by local entities and investors from the country where the opportunities are sited (55%), Chinese entities and investors (48%) and technical and financial consultants (33%) (Exhibit 25). One out of five (21%) Singapore respondents indicated interest to partner with commercial banks, while some respondents are keen to partner with other financial entities, such as Sinosure, to mitigate some of the political and commercial risks. In addition, some respondents indicated interest to partner with governments of the country where the opportunities are sited, or quasi-government agencies.

#### Exhibit 25: Singapore respondents' preferred partners

Question: My organisation would be most keen to partner with this company / organisation to be involved in future regional infrastructure opportunities: (*No. of respondents – 42 Singapore respondents*)



To be further involved in regional opportunities, Singapore respondents look to their local partners to bring deep local knowledge (Exhibit 26), local business relationships, and capability to source financing locally as well as to meet the hurdles of obtaining international financing which international investors can bring. On the other hand, non-SG respondents look to Singapore companies to bring international best practice, relevant project experience and local knowledge to potential partnerships (Exhibit 27), which is in line with key success factors of Singapore respondents' involvement (Exhibit 21). Furthermore, more than half (59%) of non-SG respondents believe that Singapore companies can bring financing sourcing capability into potential opportunities, indicating international investors' recognition of Singapore as a regional financial hub.

#### Exhibit 26: Singapore respondents' expectation of partners

Question: The key value-add which my organisation expects from partners in regional infrastructure opportunities include: (*No. of respondents – 42 Singapore respondents*)



#### Exhibit 27: Non-SG respondents' expectation of Singapore organizations

Question: What areas do you think Singapore or Singapore based companies can bring key value-add to regional infrastructure opportunities? (*No. of respondents – 69 non-SG respondents*)



# VII. Singapore companies strengthening presence in SEA, enhancing technological, financing and sourcing capabilities to capitalise on upcoming regional opportunities

To capitalise on existing and emerging regional infrastructure opportunities, Singapore companies have carried out or intend to carry out certain activities to prepare for more active engagement in regional opportunities. Nearly half (48%) the Singapore respondents plan to establish or strengthen their presence in Southeast Asia (Exhibit 28), which is believed to be an effective way to address some of the challenges faced by Singapore companies, including lack of opportunity partners and information (Exhibit 22). 26% of Singapore respondents plan to enhance their financing sourcing capability, which is in line with non-SG investors' expectations of Singapore companies (Exhibit 27), indicating successful partnership opportunities.

In light of the recent developments including COVID-19, 26% of respondents plan to invest in new technologies in the operation and management of assets, while 12% intend to digitise their internal procedures. Furthermore, in order to leverage on new potential opportunities, such as in the digital and healthcare sectors, 14% of respondents plan to acquire new manpower and/or expertise, carry out specific training programs and set up new investment programs to capture new opportunities. Note that 33% of respondents have not planned for preparations specific to regional infrastructure opportunities, although the preparation could be done at the organization-wide level.

#### Exhibit 28: Preparation planned by Singapore companies

Question: To capitalise on regional infrastructure opportunities, my organisation has carried out / intend to carry out the following preparations: (*No. of respondents – 42 Singapore respondents*)



When asked about what would help them to be involved in regional infrastructure opportunities, 55% of Singapore respondents believe that a periodically updated list of regional infrastructure opportunities, containing key opportunities information, would be helpful (Exhibit 29). This is in line with 43% of the Singapore respondents selecting lack of information on opportunities as one of the key challenges they faced with in regional infrastructure opportunities (Exhibit 22).

Singapore companies also find platforms to explore potential partnerships and collaborations helpful. Such collaboration can be achieved between Singapore investors and non-SG investors, as well as among SMEs and large Singapore corporates such as Government-linked Companies. For Singapore SMEs who are unlikely to take project sponsorship risks and potentially have limited financing sourcing capability, participation in regional infrastructure opportunities where large Singapore corporates are the key investors could be an effective way to mitigate relevant risks and concerns. In addition to such collaboration among businesses, government support is also considered to be helpful for Singapore companies to be involved in regional infrastructure opportunities. Government-level engagement can effectively mitigate investors' concerns around political risks and sometimes commercial risks.

#### Exhibit 29: Support preferred by Singapore companies

Question: The following support would be effective / helpful in getting my organisation to be more involved in regional infrastructure opportunities: (*No. of respondents – 42 Singapore respondents*)



On top of the information consolidation and collaboration opportunities that Singapore respondents appreciate, non-Singapore respondents believe more cross-sector collaboration and flexibility in investment approach would help the Singapore business community to achieve a more meaningful partnership in regional infrastructure opportunities (Exhibit 30).

#### Exhibit 30: Support preferred by investors

Question: What areas do you think the Singapore business community can improve for a more meaningful partnership in regional infrastructure opportunities? (*No. of respondents – 69 non-SG respondents*)



### 6. Key considerations for Singapore business community

ASEAN is one of the world's fastest growing economies, and such rapid growth requires significant investment in infrastructure. There are considerable opportunities present for Singapore to play an active role in regional infrastructure, and the survey results have uncovered the following considerations for the Singapore business community.

#### I. Leverage the country's established position as an infrastructure finance hub

As a thriving financial hub, Singapore serves as the Asia-Pacific base for many global banks with project finance lending and advisory specialisation. Singapore also works closely with multilateral development banks (MDBs) to improve the bankability of Asian infrastructure projects. As a result, Singapore has been the infrastructure finance hub of Southeast Asia, with up to 60% of ASEAN project finance transactions arranged by Singapore-based banks<sup>19</sup>. In addition, asset owners have successfully utilised business trusts to monetise their infrastructure assets and gain access to the international investors base.

Partly due to this, more than half of non-SG respondents in the survey look to Singapore organizations to bring financing sourcing capabilities into regional infrastructure opportunities (Exhibit 23). With COVID-19 putting financial pressure on many regional governments, private capital is vital in achieving sustainable infrastructure development in Southeast Asia. New opportunities are also expected to arise from the recently signed RCEP, under which the transport, energy and communication links between Southeast Asia and China, Japan, Korea, Australia and New Zealand are expected to be strengthened, and its common Rule of Origins (RoO) that harmonize information requirements and local standards for businesses to be eligible to the preferential terms of the RCEP are expected to attract foreign investments in Southeast Asia<sup>20</sup>. Singapore is well positioned to benefit from such opportunities, especially from the financing perspective.

#### **Roadmap for Singapore companies**

- Understand the commercial and financial structure of regional infrastructure opportunities. The survey results have showed that bankability is the top challenge faced by Singapore companies to be involved in the regional infrastructure opportunities. This challenge has been recognized across the region, and multi-lateral banks (such as Asian Development Bank, International Finance Corporation, InfraCo Asia), and government agencies (such as Infrastructure Asia, JICA) are advising regional governments to procure more infrastructure projects under bankable structures. E.g. IFC is advising the Myanmar government to adjust the commercial structure of the Yangon Elevated Expressway project to attract more private interests. At the same time, some multi-lateral banks (MDBs) such as ADB, AIIB and IFC, have also provided equity and project financing to infrastructure projects in the region to meet the financing gaps. World Bank and ADB also have regional teams present in Singapore to work with Singaporean companies which are looking to invest in regional projects. Singapore companies could engage more closely with these multilateral banks to understand their priorities and seek to align their investment interest with these MDBs.
- In addition to MDBs, it is also important to engage with commercial banks in early stage development of any project. This enables companies to understand the presence of these banks in-country, their lending

<sup>&</sup>lt;sup>19</sup> Sharad Somani, the Business Times, 26 April 2018, "Singapore to play a key role in Asia's infrastructure development"

<sup>&</sup>lt;sup>20</sup> Peter A. Petri and Michael Plummer, the Brookings, 16 November 2020, "RCEP: a new trade agreement that will shape global economics and politics"

limits and risk appetites, as well as allowing for early identification and mitigation plan of financing risks, such as repatriation risk and exchange rate risk.

- Leverage on the financing support schemes provided by the Singapore government, such as the Enterprise Financing Scheme Project Loans (EFS-PL) and Internationalization Finance Scheme Non-recourse (IFS-NR), provided by Enterprise Singapore (ES). The EFS-PL aims to support Singapore SMEs in their internationalisation efforts by assisting them in financing the fulfilment of their overseas projects. Meanwhile under IFS-NR, ES and financial institutions would provide project financing to mid-sized Singaporean companies for local and overseas development projects.
- Consider exploring financial products available in Singapore to mitigate some of project risks. E.g. Political risk insurance (PRI) is an effective way to mitigate political risks of regional infrastructure opportunities, and Enterprise Singapore can support up to 50% of the PRI premium under Political Risk Insurance Scheme (PRIS). MDBs also provide political risk guarantees for regional projects and Singapore companies could also consider these options.
- Tap into the large pool of professional services providers and engineering consultants available in Singapore to de-risk projects and improve the bankability. Singapore has a large pool of legal, financial, commercial and engineering expertise, who are experienced in Singapore and the region. Leveraging on such expertise to conduct quality feasibility studies would be a key step to de-risk projects. Furthermore, some consultancies have already established local networks across the region, and they can be good sources of information in the process of securing reliable local partners.
- Engage investors and advisors on exit or refinancing strategies for mature infrastructure assets, e.g. through listing or bond issuance. Singapore's business trusts have been an approach for infrastructure asset owners to monetize their assets. Recently, the Monetary Authority of Singapore (MAS) has explored the idea of converting project loans for mature projects into marketable securities<sup>21</sup>. In 2018, Clifford Capital priced Asia's first project financing securitization of a portfolio of 37 infrastructure loans across 30 projects from 16 countries in the Asia-Pacific and the Middle East. MAS also encourages the issuance of green, social, sustainability and sustainability-linked bonds in Singapore through the Sustainable Bond Grant Scheme.

#### II. Lead the regional digital economy

Singapore is a front-runner in the digital transformation space in SEA. Under the country's flagship digital initiative, Smart Nation, Singapore governments and businesses have been adopting digital technologies and driving digital innovations in their daily operations. As a result, Singapore is ranked first in the Asia Digital Transformation Index 2016 and 2018.<sup>22</sup>

COVID-19 has also fundamentally changed consumer behaviour. Businesses and governments across the region have re-aligned their strategies and policies with the changing dynamics of the new world, and the accelerated pace of digitisation world over.

<sup>&</sup>lt;sup>21</sup> Philip Stafford, Financial Times, 27 June 2019, "Singapore financiers look to put region's infrastructure on track"

<sup>&</sup>lt;sup>22</sup> The Economist Intelligence Unit, February 2019, "The Asia Digital Transformation Index 2018: building environments for technology-led change"

As digitisation frontrunners, Singapore organizations are well positioned to participate in the emerging digital opportunities. Our survey results also indicated a growing interest in the technology / digital sector among Singapore companies.

#### **Roadmap for Singapore companies**

- As part of the Government's increase in ICT spending to accelerate digitalisation, Singapore companies, especially SMEs, can participate in potential procurement opportunities. The Government will put up bulk tenders with a projected value of SGD 1.2 billion with the hopes of broadening the chance for SMEs to participate in and win ICT contracts with government agencies.<sup>23</sup>
- Recently, multiple Chinese tech giants including Bytedance, Tencent and Alibaba have announced to build their regional hubs for Southeast Asia in Singapore.<sup>24</sup> Singapore tech suppliers and investors can participate in potential collaboration opportunities across the region.
- One approach to participate in the digitisation of the regional infrastructure sector is to bring innovative solutions to improve efficiencies along the whole lifecycle of the assets, as well as invest in opportunities with potential to adopt digital technologies. Over recent years, the use of technology in infrastructure assets has been a key element in wining public tenders. For example, in the 60 MWp Tengeh Floating Solar project, Sembcorp uses a digital monitoring platform that tracks environmental factors, detects abnormalities, and allows personnel to monitor the system remotely via a mobile application and deploy maintenance team only when required <sup>25</sup> Singapore companies can seek to work with Singapore government agencies such as Infrastructure Asia, Enterprise Singapore and Singapore government agencies in these areas to provide capacity building to the regional government.

#### III. Increase focus on green and sustainable infrastructure investment

Some of the ASEAN countries are the ones most affected by the climate change. ADB estimates that the impact of climate change could reduce Southeast Asia's GDP by 11% by 2100 under the business-as-usual emission scenario.<sup>26</sup> It is evident that improvement and development of infrastructure in a sustainable way is vital for Southeast Asian countries' short-term economic recovery and long-term economic growth. The survey results also indicated a shift away from non-renewable energy among Singapore companies.

Singapore has a strong track record of developing sustainable infrastructure through innovations. The country has successfully transformed its food industry through utilising agritech, and it has set international standards for water recycling and treatment. Furthermore, Singapore's green architecture and smart building design have been widely recognised internationally. These experiences and know-hows can be key value-add that Singapore organizations offer in regional infrastructure opportunities.

Besides a strong focus on sustainability, Singapore is also positioning itself as the Green Finance Hub for Asia. It is estimated that USD1.8 trillion of green finance opportunities exist in the regional infrastructure sector between

 $<sup>^{23}</sup>$  Stuart-Crowley, w.media, 8 June 2020, "Singapore Government looks to accelerate digitalisation and tackle COVID-19 with \$3.5 billion ICT spend increase"

<sup>&</sup>lt;sup>24</sup> Channel news Asia, 15 September 2020, "Tencent to open regional hub in Singapore for Southeast Asia"

<sup>&</sup>lt;sup>25</sup> Sembcorp, 18 August 2020, "PUB and Sembcorp Commence Construction of 60 MWp Floating Solar Photovoltaic System on Tengeh Reservoir"

<sup>&</sup>lt;sup>26</sup> ADB, January 2016, "Southeast Asia and the Economics of Global Climate Stabilization"

 $2016 - 2030^{27}$ . Singapore is well positioned to leverage on such opportunities due to its strengths as a financial hub, strong record on governance and environmental protection, as well as links to the region.

The development of regional collaboration such as the ASEAN Power Grid has the potential to develop Singapore into a regional energy hub for renewable energy.

#### Roadmap for Singapore companies:

- Singapore companies should consider engaging Environmental, Social, and Governance (ESG) experts to ensure that governments and companies better manage their ESG footprint. This is essential as more governments and investors (especially private equity funds, infrastructure funds, MDBs and banks) are incorporating ESG criteria into the regulatory requirements, governance framework, investment assessments and valuation decisions. Climate resilience is increasingly observed to be a key evaluation criterion in many investment evaluation frameworks. Companies with strong sustainability programs are perceived to have reliable performance going forward.
- Companies that are looking into projects that may contribute to climate change positively could approach MDBs for climate financing. The seven largest MDBs in the world, including ADB, AIIB and the World Bank Group, have jointly committed a total of USD 61.6 billion into climate finance in 2019, with USD 41.5 billion committed to low-income and middle-income economies.<sup>28</sup>
- In addition to that, Singapore companies are presented with the opportunity to obtain green and sustainable financing from the MAS through the Green and Sustainability-Linked Loan Grant Scheme (GSLS). The GSLS is the world's first grant scheme to support green and sustainability-linked loans. The GSLS will support MAS' aim to develop a green finance ecosystem which will promote the region's transition towards a sustainable future.<sup>29</sup>

#### IV. Embrace international best practices to differentiate and gain competitive advantage

The survey results indicated that the ability to introduce international best practice and standards is one of the key success factors of Singapore companies in regional infrastructure projects. Introduction of international best practise and standards by Singapore players are prevalent at both the government level and the enterprise level. At the public level, Singapore Cooperation Enterprise (SCE) has been sharing Singapore's development experience with Southeast Asian governments. More recently, Infrastructure Asia (IA) was set up by ES and MAS in 2018 to bring industry stakeholders across the value chain together to explore project opportunities in Asia. In the private sector, Singapore companies have successfully introduced best practices of technology, design, operation, management and financing into infrastructure projects that they are involved in.

International investors continue to expect Singapore companies to bring international best practices into regional opportunities, as Singapore companies continue to leverage the country's established ecosystem of public sector agencies and financiers, to serve Asia's infrastructure needs and unlock the region's infrastructure potential. During the Asian Infrastructure Forum 2019, Ms Indranee Rajah, Singapore's Minister Prime Minister's Office, Second Minister for Finance & Second Minister for National Development, announced that IA and the MAS have plans to

 $<sup>^{27}</sup>$  DBS-UNEI, 2017, "Green finance opportunities in ASEAN"

<sup>&</sup>lt;sup>28</sup> 2019 Joint Report on Multilateral Development Bank's Climate Finance

<sup>&</sup>lt;sup>29</sup> Monetary Authority of Singapore, 24 November 2020, "MAS Launches World's First Grant Scheme to Support Green and Sustainability-Linked Loans"

work with law firms to standardise clauses in project finance loan documents - an effort to reduce time and cost and make processes more transparent. The remaining 50% of clauses would remain customisable according to individual project needs.

#### Roadmap for Singapore companies:

- Singapore companies should continue to leverage on the country's established ecosystem of public sector agencies and financiers, to serve Asia's infrastructure needs and unlock the region's infrastructure potential. Singapore has been active in initiatives such as Global Infrastructure Facility, Global Infrastructure Hub, ASEAN Infrastructure Centre of Excellence and the more recent Singapore Green Finance Centre, which provides research, knowledge and financial support to regional infrastructure development. Understanding recent developments under such initiatives can be an efficient approach to identify interests and opportunities.
- Companies can also consider engaging consultants to bring in international best practice. Singapore is the base to a group of regionally recognized professional services providers and engineering consultants; bringing them into regional infrastructure opportunities can effectively reinforce the international best practices and impose positive influences.

#### V. Look out for community fostering initiatives led by SBF

Singapore companies highlighted the importance of communication platforms to explore potential collaboration opportunities, aside from regular projects information and updates. This, according to them, will help the Singapore business community to be more effectively involved in regional infrastructure.

Over the past few years, SBF has successfully held a series of Singapore Regional Business Forum events and meetings and Singapore Regional Infrastructure Summits. More recently in 2019, IA also held the Inaugural Asia Infrastructure Forum to share capital mobilization strategies. Looking forward, industry players believe a series of smaller and more frequent meetups with dedicated themes could help foster a community for regional infrastructure and potentially lead to successful partnership.

#### Framework for SBF:

- The survey results show that a periodically updated regional infrastructure opportunities information pack would be helpful. SBF can consider working with MDBs such as IFC and ADB, as well as Singapore's ES and IA to source for regional opportunities information and publish a regional infrastructure information pack which will be updated regularly.
- To leverage on Singapore's position as regional infrastructure finance hub, SBF can consider forming strategic partnerships with infrastructure investors such as Clifford Capital, Macquarie Infrastructure and Real Assets and AMP Capital, as well as commercial banks such as DBS, UOB and OCBC, to create a platform for Singapore companies to pitch projects to, as well as to provide guidance on how to make the projects more investible and bankable. SBF could also consider if an early project development funding or other resources platform could be put in place to help fund Singapore companies' early project development cost.
- In order to facilitate Singapore companies to gain access to regional infrastructure opportunities, SBF can consider working with experienced professional advisors to organize project connection event. These

advisors can introduce project developers and investors and their requirements, while SBF can reach out to interested Singapore companies to pitch their services to the project owners.

#### VI. Notable infrastructure projects in the region

Below is a list of selected, notable infrastructure projects across the region. Singapore companies can further explore these regional opportunities for potential collaboration and participation.

Project	Country	Cost (USD)	Description	Status
Metro Cebu Expressway	Philippines	580 million	A 73.8 km long high standard arterial road planned to meet Metro Cebu's existing and future traffic demand	Under Project Development
Ormoc City Water Supply System Project	PhilippinesTo be determinedProvision of a comprehensive water system to meet the demand for good quality and		Under Project Development	
Diesel to Renewable Conversion Program	Indonesia	4.3 billion	3 phases included in the program: Phase I (225 MW across 200 locations), Phase II (500 MW, locations TBD) and Phase III (1.300 MW, locations TBD)	Under project development
Jatibarang waste to energy project	Indonesia	1.1 billion	A waste-to-energy plant project that is expected to reduce waste volume at landfills by 80 percent. Feasibility and technology studies completed by the government.	Under project development
National Digital Network (Jendela)	Malaysia5.2 billionNational digital infrastructure project to improve the country's 4G and broadband coverage and lead the country's transition towards 5G. Two phases: Phase 1 from 2020 to 2022 and Phase 2 from 2022-2025.		Phase 1 projects under tender	
Cai Mep Ha Logistics Park	Vietnam	445 million	A logistics centre, including a port, on 1,736 ha of land in Ba Ria – Vung Tau province.	Under project development
New Yangon City	Myanmar	800 million	A new urban area developed across the river from downtown Yangon. Phase 1 development include 23 sqkm of resettlement area, 3 sq km of industrial estates, as well as power, water and wastewater treatment facilities.	Phase 1 master development under swiss challenge process
Sagaing region solar power projects	power ects Monywa, Ngapyawdine, Nyaungbing Ohntaw of Sagaing region. Ngapyaw Nyaungbingyi and Ohntaw projects a under the 1GW solar tender with wir		5 solar projects located in Kyaukpahtoe, Monywa, Ngapyawdine, Nyaungbingyi and Ohntaw of Sagaing region. Ngapyawdine, Nyaungbingyi and Ohntaw projects are under the 1GW solar tender with winners including Sungrow, Shwe Taung and Gezhouba.	Kyaukpahtoe, Monywa projects are looking for additional financing

Note: the above list is not exhaustive and do not represent PwC's recommendation for investment in these projects as companies should consider the risk and reward for each of the above project vis-a-vis their experience, resources and risk appetite.

### 7. Conclusion

The US-China geopolitical developments and the COVID-19 crisis have significantly impacted the SEA economy. However, despite these disruptions, business leaders from ASEAN as well as from around the world remain positive about the regional infrastructure outlook. Although they have enhanced focus on the commercial viability of various opportunities, they welcomed the support extended by the governments, and are seeking to identify new opportunities from these recent developments. Some of such new opportunities include creation of new manufacturing hubs, adoption of digital technologies in infrastructure assets, aside from opportunities in the digital and healthcare sectors.

Many Singapore organizations have successfully participated in the regional infrastructure space, attributed to their ability to bring relevant experience, international standards and local knowledge into the opportunities. Nevertheless, Singapore organizations are also faced with certain challenges in regional infrastructure opportunities, including bankability concerns, lack of opportunity information and lack of access to reliable partners.

Going forward, business leaders continue to look for commercially viable infrastructure opportunities across the region, with specific focus on some of the emerging investment themes, such as digital, healthcare and shift of supply chain activities.

To achieve more meaningful partnerships in the region and more cross-sector collaboration, dedicated platforms for stakeholders to discuss potential collaborations, and information sharing on regional infrastructure opportunities will be helpful for the Singapore business community, according to the survey respondents. It will also help enhance collaboration between larger Singapore corporates and the SMEs.

To leverage on enormous regional infrastructure opportunities, Singapore shall leverage its strength as a regional infrastructure finance hub to shape investible and bankable infrastructure projects. Singapore private and public sectors have been able to introduce international best practices into regional opportunities, and international investors expect Singapore organizations to continue doing so in future partnerships. As Southeast Asia gradually shifts its development focus to green and sustainable infrastructure, Singapore organizations can bring in their relevant experiences, expertise and green financing sourcing capabilities to support sustainable development. The COVID-19 pandemic is expected to accelerate the digitization of the regional economy, and Singapore companies can utilize their digital strengths to lead the digitization opportunities. Furthermore, a series of smaller-sized, regular meetups dedicated to specific themes can be helpful in fostering a regional infrastructure community in Singapore.