

# 1H 2023 TRAVEL AND HOSPITALITY STRATEGY & INVESTMENT OUTLOOK REPORT

JANUARY 2023

# DISCLAIMER

---

The presentation herein is published by Velocity Ventures Pte Ltd (“Velocity Ventures”) and is for information only. This presentation is not and does not constitute an offer, recommendation, invitation or solicitation to subscribe or to enter into any transaction as described, nor is it to invite or permit the making of offers to the public to subscribe or to enter into any transaction as described and should not be viewed as such. All offers and sales of interests will be made only in accordance with the terms and conditions of, and information contained in, A private placement memorandum or in private agreement.

The presentation contains information which has been derived from a number of sources. While the information is believed to be reliable, the information herein may be incomplete or condensed and may not include a number of terms and provisions nor does it identify or define all or any of the risk associated to any actual transaction. No representation is made herein as to the accuracy or completeness of such information, and neither Velocity Ventures, nor any of its affiliates, partners, members, or employees, assume any responsibility for the accuracy of such information.

All figures and amounts stated are for illustration purposes and shall not bind Velocity Ventures. Before entering into any transaction, you should take steps to ensure that you understand the transaction and has made an independent assessment of the appropriateness of the transaction in light of your own objective and circumstances. In particular, you should read all relevant documentation pertaining the transaction and may wish to seek advice from A financial or professional advisor or make such independent investigations as you consider necessary or appropriate for such purposes. In this presentation, Velocity Ventures does not act as an advisor and assumes no fiduciary responsibility or liability for any consequences, financial or otherwise, arising from any arrangement or entrance into any transaction in reliance on the information contained herein.



## ABOUT VELOCITY VENTURES

# Leading Travel and Hospitality tech investor in Southeast Asia

- The Only VC in SEA to focus on **Travel & Hospitality Tech**
- Investing across 5 technology verticals:
  1. Food & Beverage Experiences
  2. Accommodation
  3. Transportation/Mobility
  4. Travel Services
  5. Travel Services



**30+ years**  
of combined investing  
experience



**US\$3.8bn+**  
of combined transaction &  
investment portfolio experience



**8 portfolio companies**  
with 1 more in the pipeline

**Aigens**



**Tablevibe**

**TripGuru**



**carbonclick**

**HYPER**



# THE VELOCITY VALUE

Velocity Ventures leverages our exceptional breadth of macro and micro research to deliver incisive Travel & Hospitality and cross border thematic insights.

**Bennett Lee**<sup>CFA, CAIA</sup>

Investment Director

[Bennett@VelocityVentures.vc](mailto:Bennett@VelocityVentures.vc)

**Renny Chong**<sup>CAIA</sup>

Investor Relations Director

[Renny@VelocityVentures.vc](mailto:Renny@VelocityVentures.vc)



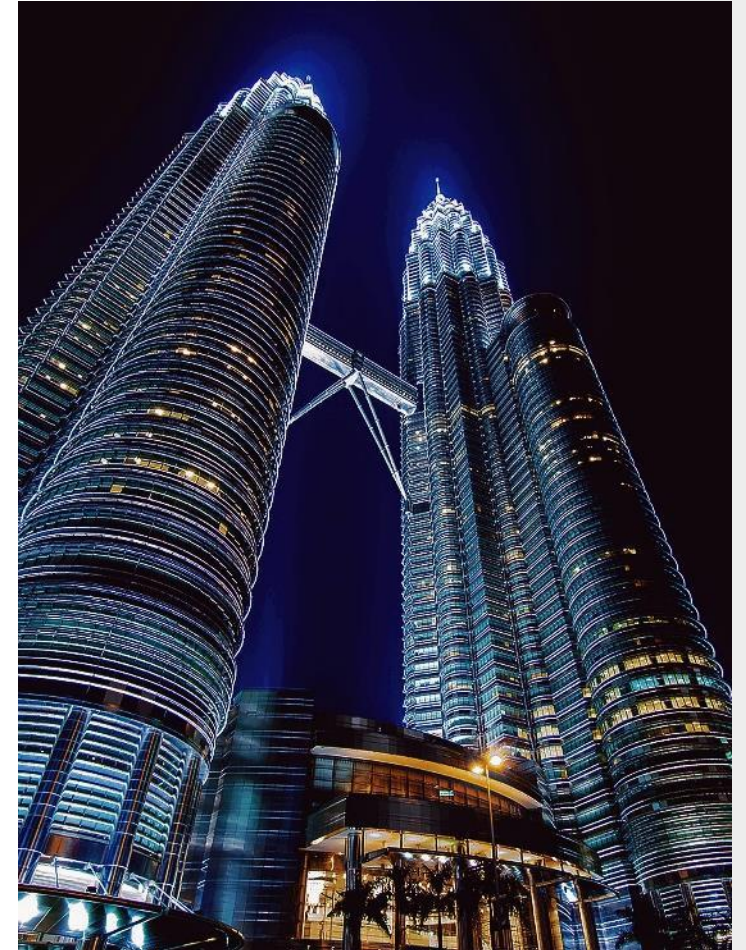
This Strategy & Investment Outlook Report was produced in partnership with Pear Anderson.

# ABOUT PEAR ANDERSON

Pear Anderson is a tourism and hospitality consultancy firm, specialising in Southeast Asia. Through market intelligence, consultancy and sales representation, they partner across the spectrum of tourism-related organisations to build a lasting foundation in the region.

Since the onset of the pandemic, Pear Anderson have published a weekly report and online dashboard, analysing the impact of COVID-19 on Southeast Asia's tourism and hospitality industry. Their work has been cited in mainstream media outlets, from BBC World News to Bloomberg, and they regularly speak at travel industry events.

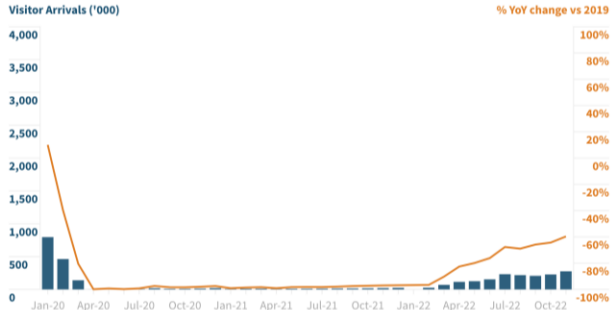
For more information on Pear Anderson and to view the dashboard, visit: [www.pearanderson.com](http://www.pearanderson.com)



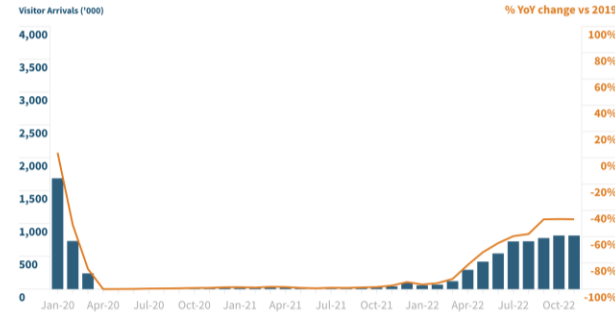
# Southeast Asia: 2021/2022 International Arrivals



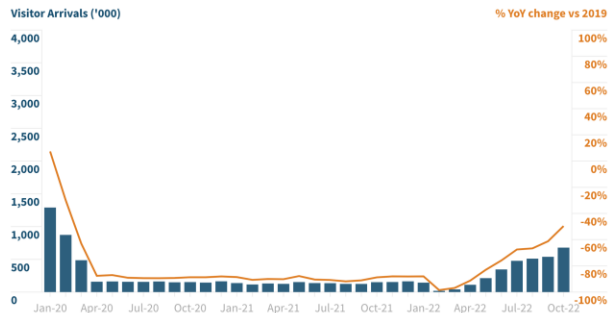
## PHILIPPINES



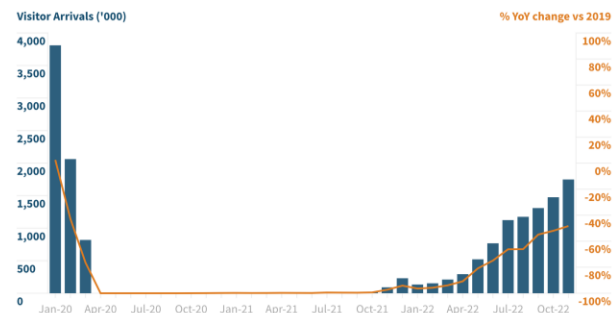
## SINGAPORE



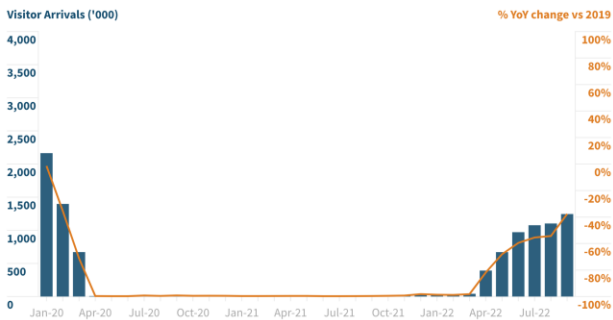
## INDONESIA



## THAILAND



## MALAYSIA



## VIETNAM



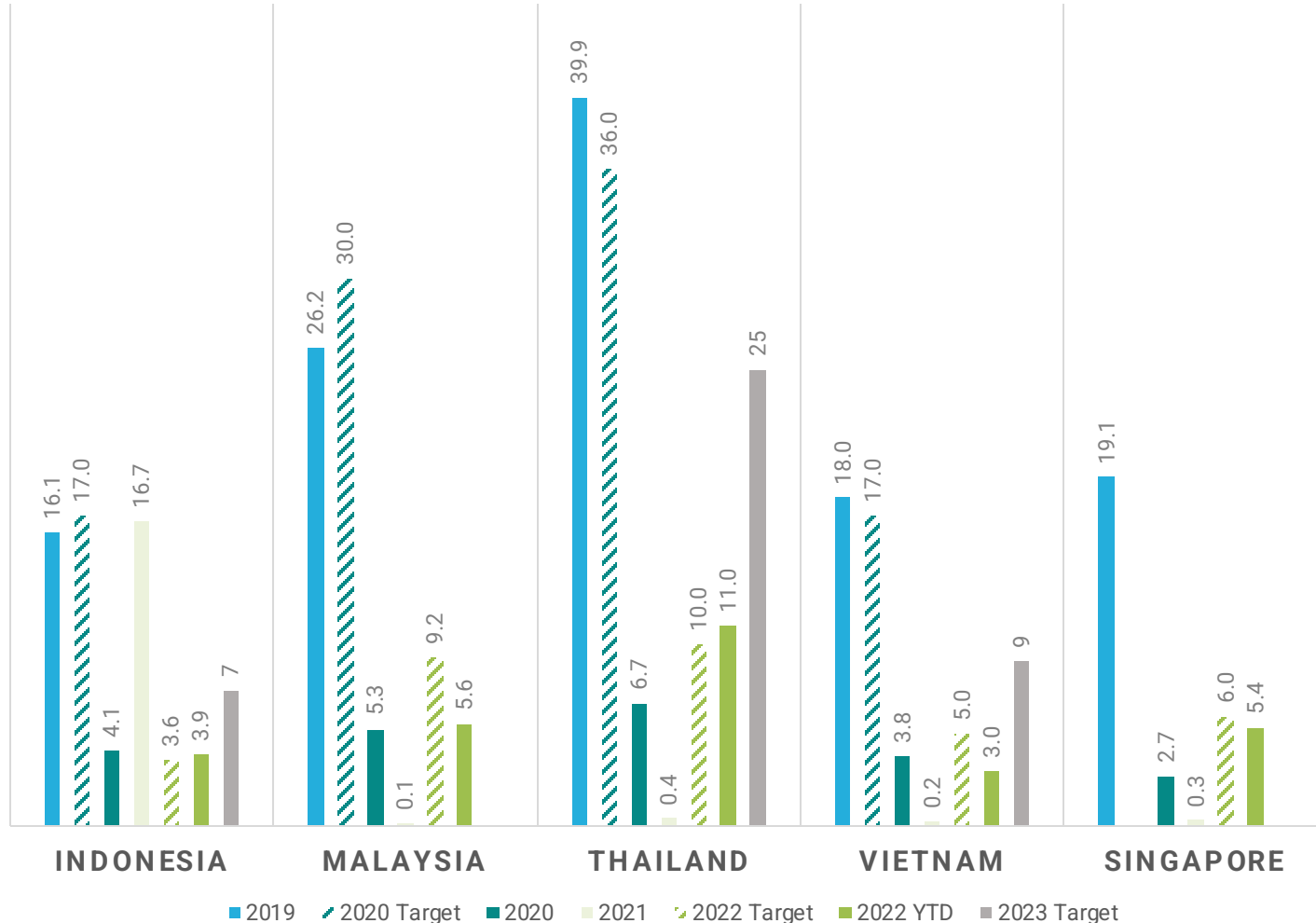
**Inbound arrivals picked up speed towards the year-end, driven by easing of entry procedures and airlines adding capacity**

- Inbound arrival numbers into Southeast Asia saw a slow but steady increase across 2H 2022, without the high MoM growth numbers which we witnessed in 2Q 2022, caused by starting from such a low base
- Thailand and Singapore posted a higher recovery of international tourists than other Southeast Asian countries, due to the head start that they had from pursuing an earlier reopening
- Key inbound source markets into the region are ASEAN countries, Europe, Australia (largely for Bali), the US and India
- The year-end period is traditionally a peak travel time for inbound into Southeast Asia, and will be a bellwether for how well tourism is recovering

# Southeast Asia: 2023 Forecasted International Arrivals



## International Visitor Arrivals (millions)



### Governments don't believe that 2023 will see a full tourism recovery

- As it stands at the start of Jan-23, Thailand comfortably hit its 2022 target of 10 million, whilst Singapore reached 5.4 million from Jan-Nov 2022, and is on track for its target of 6 million
- Meanwhile, Malaysia who increased their 2022 target to 9.2 million in 2H 2022, admitted in Nov-22 that they may not reach this high number due to unfavourable visa conditions for key markets
- For 2023, governments have cautiously set their targets. Thailand is aiming for around 63% of its 2019 arrival numbers, Indonesia 43% and Vietnam 50%
- Thailand has cautioned that 2023 may be challenging, with the initial pent-up travel demand deflating and challenging economic headwinds in key source markets

# Southeast Asia: All Restrictions Continue to Be Removed

## Governments did not backtrack on lockdown restrictions in 2H 2022 – despite variants

- The last easing of restrictions in Indonesia and the Philippines took place in 2H 2022, with the downgrading of both countries to their lowest alert levels, which permit 100% capacity and in-person classes
- Despite new variants triggering waves of COVID cases across the region, governments remained steadfast in not backtracking to previous levels – although they continued to warn that these could be an option, depending on the severity of the situation
- Nevertheless, we do not anticipate new lockdown restrictions to be imposed in 1H 2023, despite concerns over variants emanating from China, as governments have either accepted endemic status or are transitioning to endemicity

## Summary of lockdown and travel restrictions across Southeast Asia

As of 27 June, 2022 (Strategy Note 2H 2022)

COUNTRY	LOCKDOWN	DOMESTIC TRAVEL RESTRICTIONS	INBOUND TRAVEL RESTRICTIONS	OUTBOUND TRAVEL RESTRICTIONS
<b>Cambodia</b>	None	Open	Open	Permitted
<b>Indonesia</b>	Partial	Open	Open	Permitted
<b>Malaysia</b>	None	Open	Open	Permitted
<b>Philippines</b>	Partial	Open	Open	Permitted
<b>Singapore</b>	None	Open	Open	Permitted
<b>Thailand</b>	Open	Open	Open	Permitted
<b>Vietnam</b>	None	Open	Open	Permitted

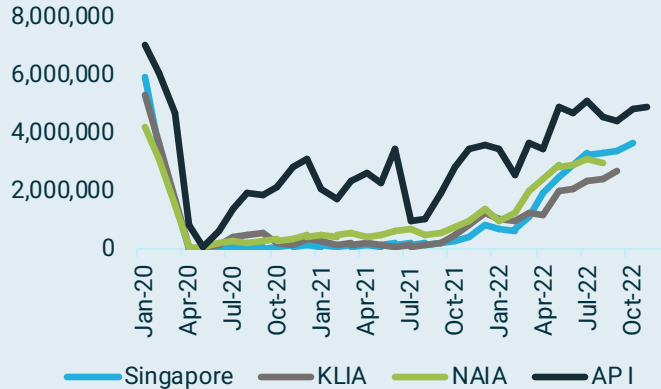
As of 1 January, 2023 (Strategy Note 1H 2023)

COUNTRY	LOCKDOWN	DOMESTIC TRAVEL RESTRICTIONS	INBOUND TRAVEL RESTRICTIONS	OUTBOUND TRAVEL RESTRICTIONS
<b>Cambodia</b>	None	Open	Open	Permitted
<b>Indonesia</b>	None	Open	Open	Permitted
<b>Malaysia</b>	None	Open	Open	Permitted
<b>Philippines</b>	None	Open	Open	Permitted
<b>Singapore</b>	None	Open	Open	Permitted
<b>Thailand</b>	None	Open	Open	Permitted
<b>Vietnam</b>	None	Open	Open	Permitted

# Transportation



## Total Air Passengers



Source: Angkasa Pura I, SingStat, Malaysia Airports Berhad  
\*Angkasa Pura I airports only (includes Denpasar, Surabaya)

## Intra-ASEAN #5 globally

for projected regional passenger flows by 2031

4,255

Forecasted aircraft deliveries into SE Asia by 2041

193,000

Aviation personnel required

Source Boeing Commercial Market Outlook 2022-2041

## Aviation is still far from reaching a full recovery - pushing beyond 70% is a challenge without China

- Singapore Changi -37% of 2019 levels in Sep-22
- SIA Group saw a slowdown in its 2H 2022 MoM growth

## Fleet expansion is back on the cards, as airlines look to handle anticipated capacity and meet sustainability goals

- Malaysia Airlines considering adding 25 Boeing 737 MAX planes, Thai Airways 9 more aircraft in 2023 and AirAsia confirmed delivery of 362 Airbus A321neos from 2024

## Domestic aviation lifts overall recovery, but local competition intensifies due to overcapacity

- Manila's NAIA Aug-22 domestic passengers were +3% vs 2019
- New airline, MYAirline, launched on 1 Dec-22. Malaysia Airlines looking to move capacity from local to foreign markets

## EU-ASEAN aviation agreement to boost flight connectivity, bring airfares down

- New agreement opens up 100 country pairs previously unlinked in the 2 regions

## Cruises to nowhere transition to port calls, cruise intention high amongst SEA travellers

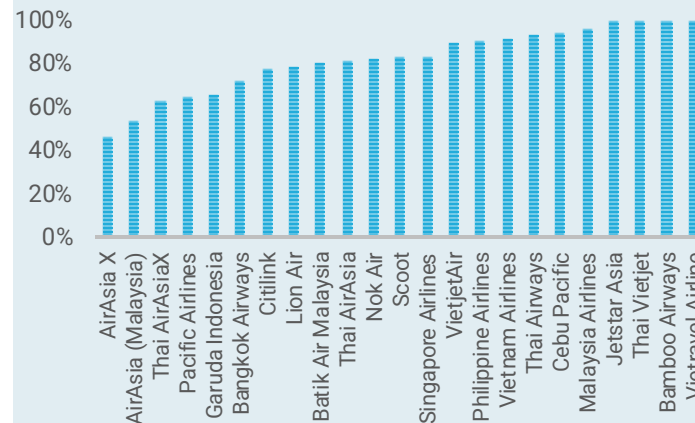
- Royal Caribbean sees fastest cruising growth led by India, Malaysia, and Indonesia
- STB expects Singapore cruise industry to return to pre-pandemic levels between 2023 and 2024

## SIA Group Passengers



Source Singapore Airlines Group

## Airline Fleet Back in Service H2 2022 (%)

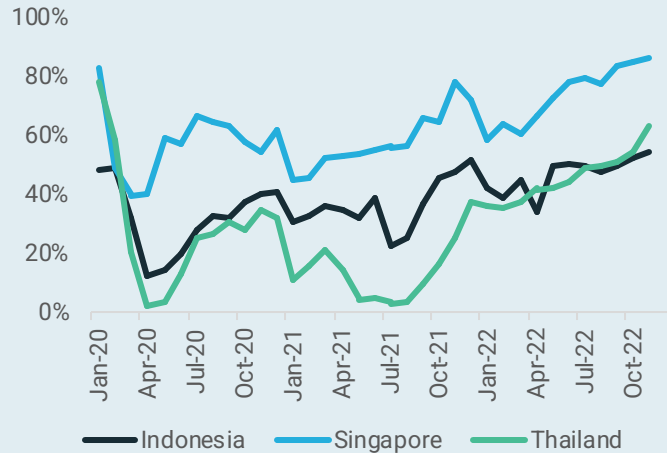


Source: Planespotters.net

# Accommodation

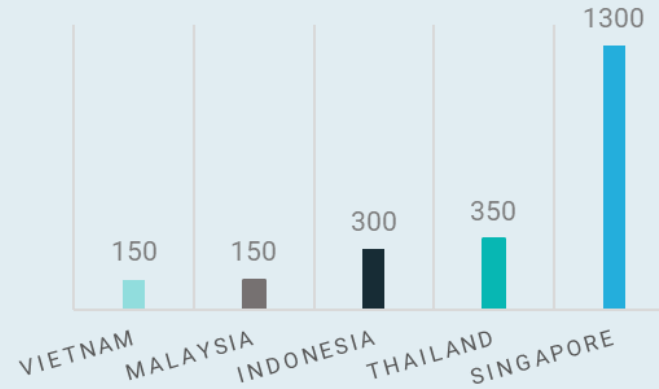


## Hotel occupancy (%)



Source: STAN, MOTS, BPS

## Forecasted 2023 Hotel Investments (USD mil)



Source: JLL Hotel Investment Highlights Asia Pacific 2H 2022

## Singapore's leads hotel occupancy recovery whilst Thailand, Indonesia, stagnate

### Lower starred hotels continue to struggle with occupancy levels, city hotels pick up steam

- THA reported four-star and lower hotels are suffering more than five-star hotels in Thailand, as they cannot rely on MICE
- Jakarta pulls ahead for occupancy vs. Bali, whilst Bangkok leads vs Phuket until the year-end peak holiday period

### Major events drive higher occupancy rates, but will they generate continued growth?

- PHRI reported that over G20 period, Bali occupancy reached nearly 70% vs 20% in 2021
- Singapore's average room rate reached 14-year high of SGD\$284.37 in Sep-22, driven by the F1 race
- Marina Bay Sands reached 96% occupancy rate in 3Q 2022 and a RevPAR of USD\$494, vs 3Q 2021 RevPAR of USD\$169

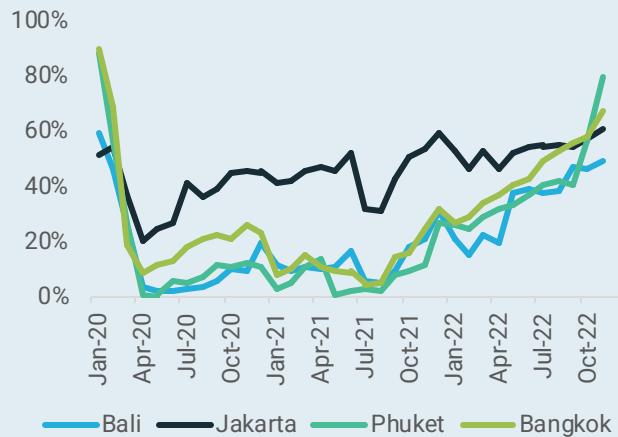
### Thailand, Malaysia launched new schemes to attract digital nomads, Indonesia in planning stages

- Thailand is aiming to attract 1 million travellers over the next 5 years, generating THB1 trillion annually. Malaysia is aiming for a RM5 billion contribution to GDP by 2025
- Airbnb reported longer stays of 28+ days in the Philippines are up 25% YoY, nearly 90% vs 2019

### Hotel investment back on the up, Singapore leads

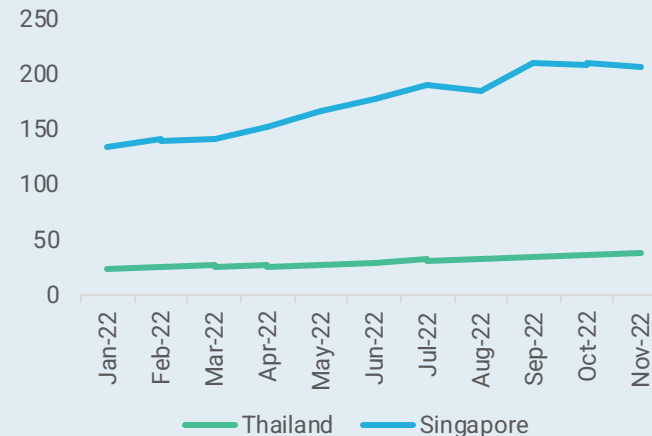
- Hotel investment in Singapore from 1Q-3Q 2022 reached USD\$923 million, exceeding pre-pandemic levels

## Regional hotel occupancy (%)



Source: MOTS, BPS

## Average Room Rates Thailand & Singapore (USD)

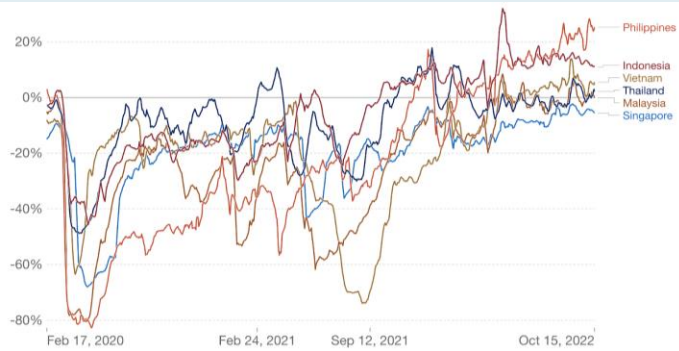


Source: STB, MOTS

# Experiences

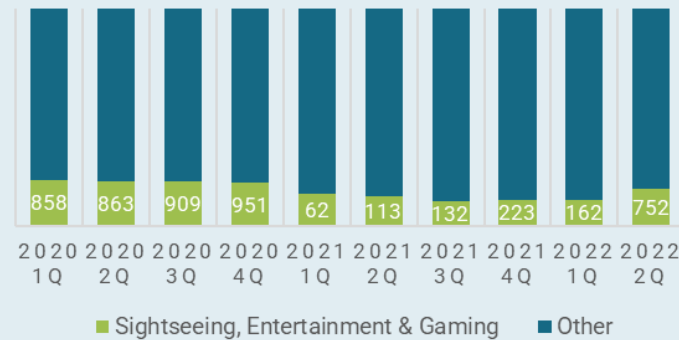


## Retail & Recreation: How did the number of visitors change relative to before the pandemic?



Source: Our World in Data

## Sightseeing, Entertainment & Gaming Spend: Singapore (SGD\$ million)



Source: STAN

## Southeast Asia gets on the move, Singapore lagging behind

- By 15 Oct-22, only Singapore remained behind 2019 visit levels
- Philippines is well above its pre-pandemic mobility levels - potentially as a reaction to undergoing some of the most stringent lockdown restrictions in the region

## Singapore's sightseeing expenses see gains in 2022

- Singapore's Sightseeing, Entertainment and Gaming (SEG) spend reached SGD\$752 million in 2Q 2022 and 17% of overall tourism spend, vs 2021 lows of 12%

## Convention bureaus see interest in physical domestic and international MICE events grow, intensify promotions

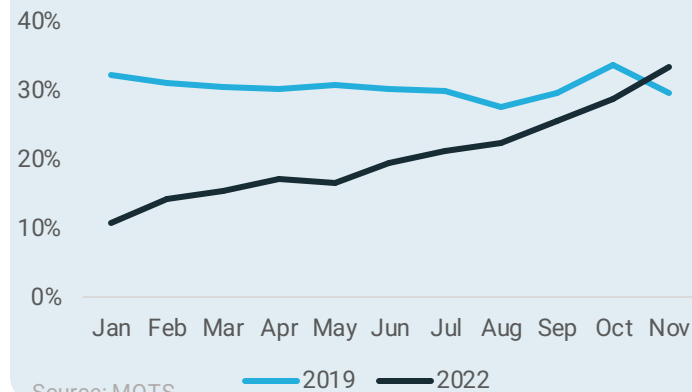
- Thailand Convention and Exhibition Bureau (TCEB) introduced financial incentives for domestic exhibitions in key industries
- Thailand Incentive and Convention Association (TICA) estimate revenue from MICE may reach 60% of pre-pandemic levels in 4Q 2022, with demand high for YE 2022
- Kuala Lumpur Convention Centre reported as of Nov-22 that its results were ~90% of 2019 levels
- The Singapore Tourism Board (STB) saw a rapid uptick in the number of supported 2022 events to 125 as of Sep-22, but is still a long way from 2019's 685 total

# 100,000

Thailand's forecasted MICE visitors by end-2022

Source: TCEB

## Share of Revenue from Conference/Seminar Package to Total Revenue, Thailand (%)

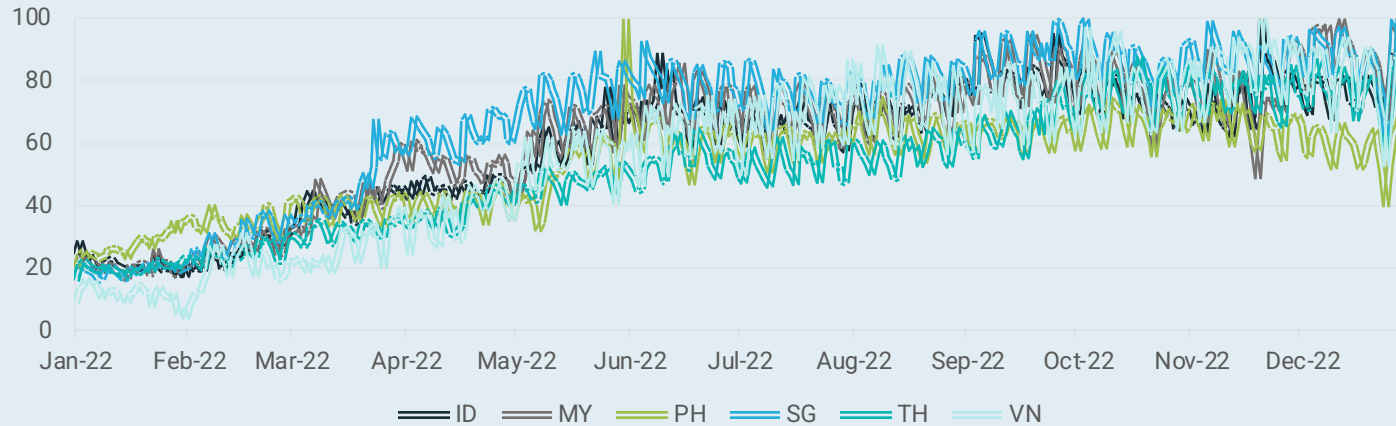


Source: MOTs

# Travel Services

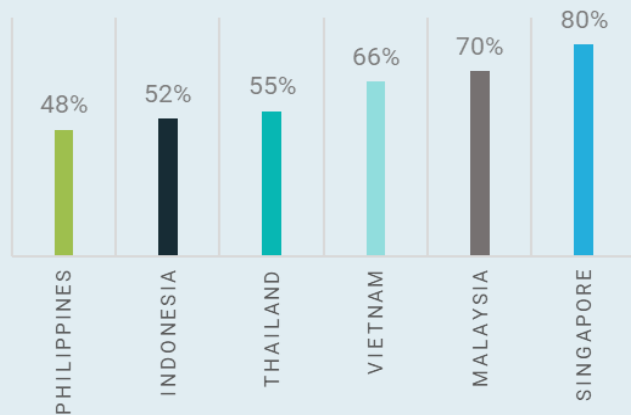


## Outbound Travel Searches on Google to Worldwide Destinations



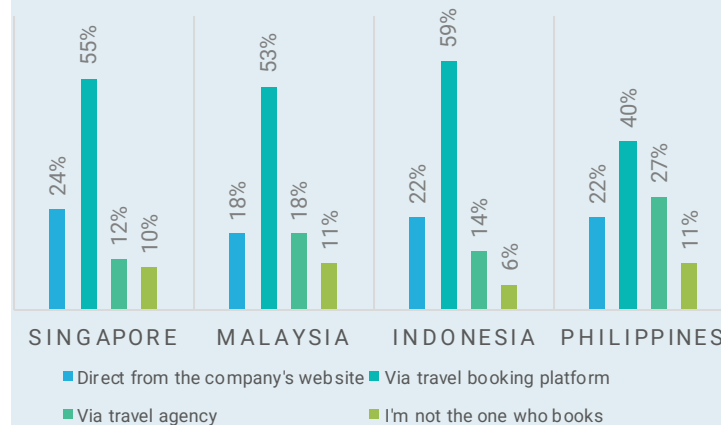
Source: Google Destination Insights

## % Online Travel Adoption Across Urban Areas in 2022



Source: Google e-Economy SEA 2022

## How Tourists Make Travel Arrangements - 2022



Source: MilieuInsights

## Outbound travel searches continue to increase, demonstrating continued pent-up demand

- Switzerland reported SEA travellers were just -21% of 2019 visitor levels, calls region "the powerhouse of this planet"

## Regional travel super apps take divergent paths: Traveloka doubles down on travel, AirAsia expands verticals. Which is the right approach?

- Traveloka discontinued Traveloka Eats and Traveloka Sends
- AirAsia Super App launched in the Philippines and Indonesia, adding ground and sea transportation options
- Traveloka secured USD\$300 million of funding in Sep-22
- AirAsia Super App planning for a NY IPO in 2023

## Niching of OTAs continues

- AirAsia officially launches *Ikhlās*, a Muslim friendly travel and lifestyle app. Goal of 1 million active users by early 2023

## Physical consumer travel fairs see surge in visitors, sales, remain important travel sales channel

- 49% of onsite visitors to NATAS Travel Fair in Singapore bought travel packages
- 28,000 visited MATTA Fair in Sep-22 in Malaysia, higher than targeted 25,000 visitors. 2023 goal of 250,000 visitors

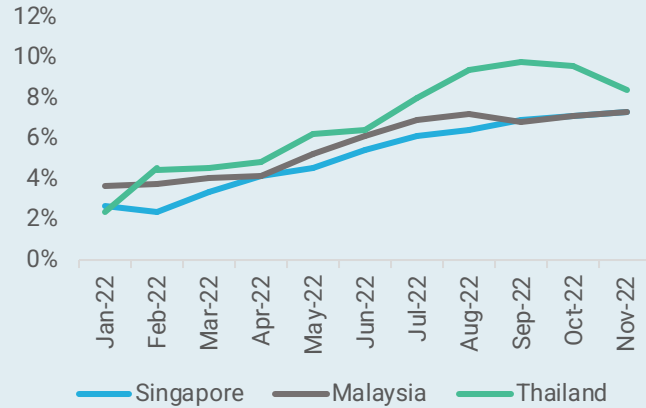
## Physical travel agencies important in the Philippines

- 27% of Filipinos make travel arrangements via an agent, vs 12% of Singaporeans

# Food & Beverage

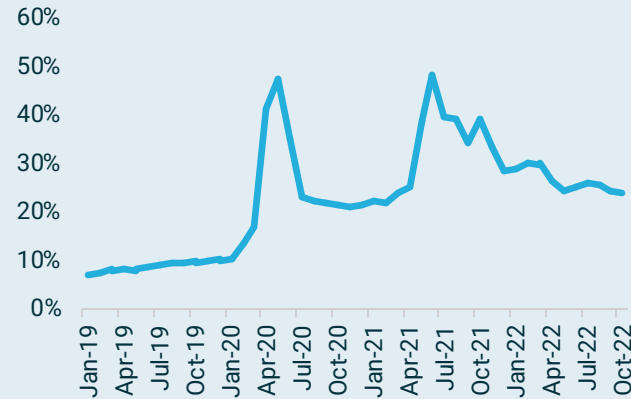


## Food Inflation (%)



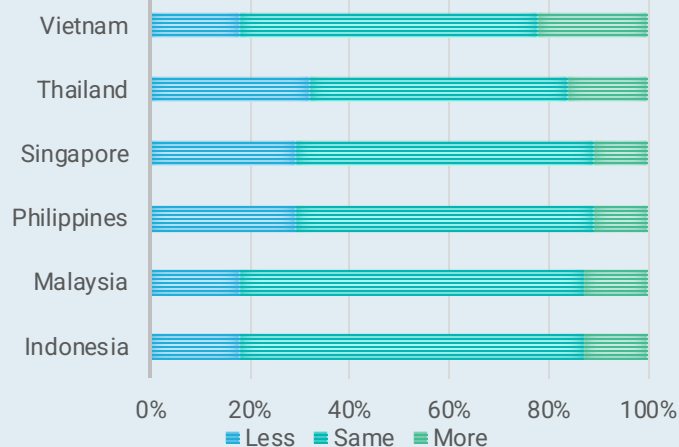
Source: DOSM, Singstat

## Online Share of F&B Sales: Singapore (%)



Source: SingStat

## Food Delivery: Intent to use the service in the next 12 months



Source: Google e-Conomy SEA 2022

## Global Food Security Index Sep-2022: SE Asia rankings

Rank (113 Countries)	Country	Overall score
28 <sup>th</sup>	Singapore	73.1
41 <sup>st</sup>	Malaysia	69.9
46 <sup>th</sup>	Vietnam	67.9
63 <sup>rd</sup>	Indonesia	60.2
64 <sup>th</sup>	Thailand	60.1
67 <sup>th</sup>	Philippines	59.3

Source: Economist Impact - Global Food Security Index Sep-2022

## Food security remains a worry for many countries within the region

- Singapore imports more than 90% of its food, and launched a 30 by 30 initiative in 2019: producing 30% of its nutritional needs locally by 2030
- The Philippines saw a sugar shortage in 3Q 2022, resulting in Coca-Cola temporarily suspending operations at many of its plants

## Food inflation is on the rise, potentially impacting F&B discretionary sales

- Inflation remains high across the region, although it started to dip in 4Q 2022

## Online food delivery sales are flattening

- 6-7 million small to medium-sized restaurants in Southeast Asia are now on food delivery platforms
- 34% of suburbanites use online food delivery

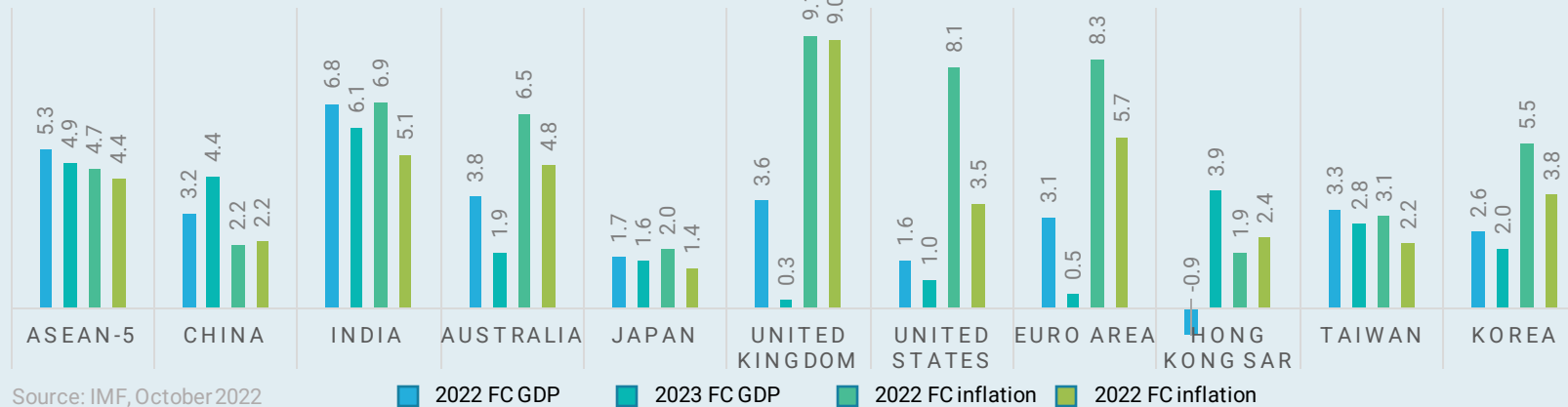
## Plant-based alternative proteins are growing in popularity, but high pricing may hold back their potential

- Grab estimates that 1 in 2 Southeast Asian consumers have tried plant-based alternatives in the last 6 months in 2022
- 77% of Singaporeans are willing to switch at least 10% of their meat consumption if the substitute tastes as good and costs no more, but just 24% are willing to switch should the substitute be more expensive

# 2023 Economic Headwinds to Impact Key Source Markets



Forecasted GDP and Inflation Growth (%)



Jet fuel costs:  
Asia & Oceania, w/e 30 Dec

\$/barrel	vs. 1 wk ago	vs. 1 mth ago	vs. 1 yr ago
116.917	+0.4%	+0.4%	+33.6%

Source: IATA, Jet Fuel Price Monitor

## Economic slowdown could hit SEA's top long-haul source markets hard, but regionally the outlook is resilient

- Europe, the US and UK are forecasted to either contract or have very limited growth in 2023, with inflation also at highs - these are key inbound markets to SE Asia which could dampen consumer demand for travel consumption
- However, the ASEAN-5 (Indonesia, Malaysia, Philippines, Singapore and Thailand) are set for a 2023 GDP growth of 4.9%, potentially leaving intra-ASEAN travel an even more valuable source market in 2023. India, a new growing inbound market for SEA, could see a GDP growth of 6.1% in 2023, bucking the global trend

## 10-year highs of the US Dollar vs. local currencies present a double-edged sword

- Regional currencies are weakening against the US Dollar. This makes inbound travel to SEA more attractive for longer haul markets, potentially positioning the region as a destination where they get more bang for their buck. However, weakening local currencies also means that outbound travel from SEA becomes more expensive
- Many airlines in the region buy their fuel in USD, adding to the already high operational costs of jet fuel

## Jet fuel stays high, impacts airlines' decisions to add frequencies and new routes due to higher operational costs

- Whilst jet fuel has decreased from its highs at the end of 1H 2022, it remains high, +33.6% YoY. SEA tourism stakeholders report demand held back by high airfares

## Cross border payments become more hassle-free

- Indonesia, Malaysia, Thailand, Philippines and Singapore signed an MoU on cross-border payments using QR codes, set for 2023 implementation
- Google Wallet launched in Malaysia, Vietnam and the Philippines in Nov-22, with integrations for mobile boarding passes

# Transportation Infrastructure Ramps up across Region



## New Manila Int'l Airport

- Philippines
- PHP735 billion
- 35 mil pax
- Start ops: 2027

## New Phnom Penh Int'l Airport

- Cambodia
- 13 mil pax/ phase 1
- Start ops: 2025

## Siem Reap-Angkor International Airport

- Cambodia
- 7 mil pax/ phase 1
- Start ops: 2023

## Long-Thanh International Airport

- HCMC, Vietnam
- 25 mil pax/ phase 1
- Start ops: 2025

## Sa Pa Airport

- Vietnam
- USD\$305 mil
- 1.5 mil pax/ phase 1
- Start ops: 2025

## Changi T5 expansion

- Singapore
- 50 mil pax
- Start ops: mid-2030s

## Bangkok Suvarnabhumi Int'l Airport expansion

- Thailand
- 120 mil pax
- Start ops: 2025

## Bangkok Don Mueang Int'l Airport Phase 3 expansion

- Thailand
- 40 mil pax

## U-Tapao 2<sup>nd</sup> terminal expansion

- Thailand
- 5 mil pax
- Start ops: 2027

## Noi Bai Int'l Airport T2 expansion, T3 construction

- Hanoi, Vietnam
- 50 mil pax by 2030

## Benoa Cruise Terminal

- Bali, Indonesia
- USD\$80 mil
- Allow cruisers with up to 6,000 pax

## Kampot Cruise Terminal

- Cambodia
- Deepen port waters to allow larger ships

## Laos-China HSR

- Laos
- Opened Dec-21
- Expects 3 mil pax in 2022

## Thailand HSR

- Thailand
- In planning stage
- Would connect to Laos-China HSR

## Singapore-Kuala Lumpur HSR

- Malaysia, Singapore
- In planning stage

## Jakarta-Surabaya HSR

- Indonesia
- In planning stage

## Vietnam HSR

- Vietnam
- In planning stage
- USD\$58.7 bn
- 1,545km long

## Phnom Penh-Sihanoukville Expressway

- Cambodia
- Opened Sep-22

## Flying taxis - Singapore

- Seletar Airport hub
- Expected to start 2024

## Flying taxis - Malaysia

- Kuala Lumpur city centre to KLIA
- AirAsia hopes to test flights Apr-2023

## New airports, expansion of air terminals

- As new airports are planned, there will be a demand for seamless, contactless technology, as well as “pandemic-proofing” concepts which Changi Terminal 5 is pursuing

## Mega-cruise ships targeted regionally

- Bali plans that its Benoa Cruise Terminal will be the largest cruise ship berth in Indonesia and ultimately, in Asia

## High-speed rail projects will impact aviation and tourist flows

- Since the Laos-China railway opened, it has seen a high uptake, with some air routes discontinued as a result
- Thailand sees connecting to it as a way to take advantage of this tourist flow from China

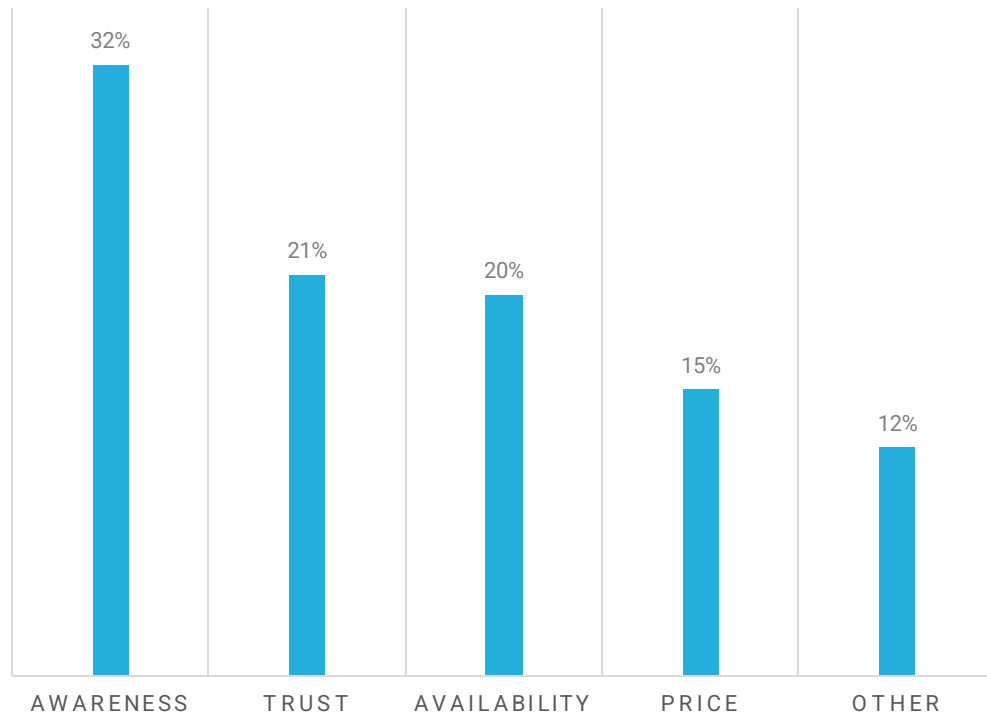
## Flying taxis not so far off (in theory)

- Both Singapore and Malaysia are looking into implementing VTOL aircraft within the next 2 years – if it is as affordable as claimed, it could change the transportation options in those cities drastically

# Sustainability in the Spotlight



## Top barriers for sustainability adoption in SEA (%)



## Extreme weather worsening in Southeast Asia, leading to tourism losses

- IPCC report noted that SEA is one of most vulnerable regions to climate change, with increasing risks of rising sea levels, river flooding, landslides, heavy precipitation and cyclones
- Thailand's flooding in 3Q/ 4Q 2022 impacted the Thai economy by an estimated 1-1.5%. TAT estimated that 5-10% of flights and hotels were cancelled and domestic trips down by 3.3 million as a result
- Typhoon Rai in Dec 2021 in the Philippines caused an estimated tourism damage of PHP3.4 billion in Central Visayas, impacting key tourism earners such as Cebu, Bohol and Siargao Island, noting it would take "huge investments and time for these areas to recover"
- Da Nang in Vietnam in Oct-22 saw its worse ever flooding from Storm Son Ca, causing losses of USD\$60 million

# Sustainability in the Spotlight



*“The global aviation community must adopt sustainability as an urgent long-term priority and act decisively to reduce the sector’s emissions” - S Iswaran, Minister For Transport, Singapore*

## **Governments are trying to balance sustainability goals vs infrastructure expansion**

- Changi’s new Terminal 5 to handle 50 million passengers, equivalent to T1 + T3
- The terminal is designed to be more energy efficient, with solar panels, smart building management systems, district cooling and thermal energy storage, and is SAF ready
- Indonesia’s Transportation Minister at COP27 called for developing countries to be given more flexibility in emissions reduction so that it does not impact the development of its civil aviation sector

## **Sustainable Aviation Fuel (SAF) makes some progress, but high costs impede progress**

- Shell Aviation to supply 25,000 metric tons of SAF per year to Cebu Pacific from 2026-2030, but no plans to use it for commercial flights yet
- Firefly in Malaysia operated its first SAF flight in Sep-22
- CAAS in partnership with SIA and Temasek, is piloting the use of SAF in Singapore
- Regional cooperation agreements on SAF development between Malaysia-EU, Singapore-US
- IATA APAC called for governments to incentivise use and production of SAF, to bring down costs

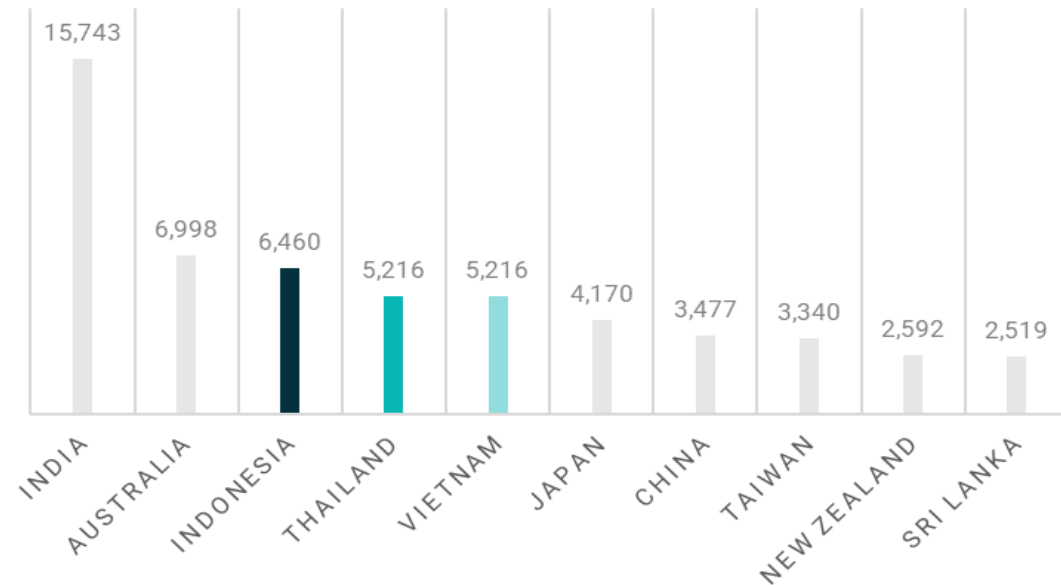
## **Airlines looking to pass the cost difference for green options on to consumers**

- Cebu Pacific has said that passengers will have to bear the cost difference between SAF and conventional fuel, should the airline decide to incorporate SAF in commercial flights
- SIA has launched a Book & Claim system, with SAF credits available for purchase by corporate, individual and freight forwarders

# Sustainability in the Spotlight



## Number of Sustainable Tourism Badge Properties on Booking.com in APAC



Source: Booking.com

### OTAs give more green options

- Traveloka joined the Global Sustainable Tourism Council (GSTC), will plant 10,000 mangroves in Lombok and 40,000 in Bali
- Indonesia, Thailand and Vietnam are in the top 10 of Booking.com's APAC destinations who have achieved a Sustainable Tourism Badge

### Thailand incentivises travel providers to get greener

- At the World Travel Mart 2022, TAT used sustainability as a criteria to select Thai sellers to participate in their B2B marketing events

### New sustainable certification schemes rolled out across the region

- TAT launched a SHA Green Stamp for hotels and businesses who "genuinely strive to be sustainable"
- STB launched its Hotel Sustainability Roadmap in early 2022, as well as the Hotel Industry Transformation Map in Oct-22, with sustainability as a core strategy, piloting solutions in energy, waste, water and carbon management

### MICE driving demand for sustainable solutions, Singapore leading the way

- G20 and APEC conferences both declared intention to be carbon neutral through offsetting
- STB launched MICE Sustainability Roadmap to be APAC's leading sustainable MICE destination by 2030, net zero by 2050
- STB signed MoU with Global MICE Sustainability Alliance to reduce waste and carbon footprint of MICE events, explore new green solutions
- TCEB driving the Thailand Sustainable Event Management Standard (TSEMS), sponsoring costs related to training, evaluation and certification. 35 businesses certified under TSEMS as of Jun-22, goal of 55 by YE 2022

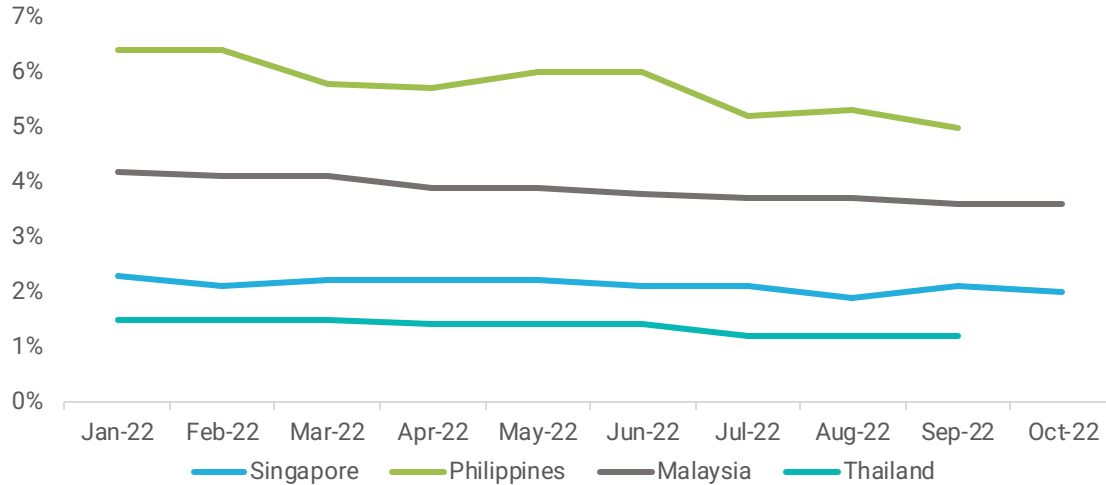
### Hotel chains increasingly looking to partner with food waste solutions

- treatsure which allows users to collect a "buffet-in-a-box" has 30,000 users in Singapore. It has saved 30 metric tonnes of food since 2017
- Yindii in Thailand works with over 150 partners
- Lumitics in Singapore has prevented 300,000 meals from hitting landfills

# Retaining Manpower Is a Key Issue Moving Forward



Unemployment rate (%)



Source: DOSM, Singstat

Priority Skills in 2022	Demand Growth YoY
Green Facilities Management	+2,300%
Carbon Markets and Decarbonisation Strategies Management	+1,700%
Workflow Digitalisation	+1,600%
Sustainability Stewardship Development	+525%
Data and Information Visualisation	+333%
Sustainability Risk Management	+330%
Waste Collection Management	+324%
Data Storytelling and Visualisation	+322%
Urban Farming Implementation and Management	+300%
Smart Facilities Management	+293%

Source: Skills Demand for the Future Economy 2022

## Employment is decreasing, but underemployment is increasing, leaving gig workers vulnerable

- The Philippines reported that its underemployment levels are up 1.14 million in Sep-22 from Sep-21, due to an increase in informal jobs
- Singapore government to implement stricter insurance, CPF payments for private-hire car drivers, freelance delivery workers, from 2024

## Hiring is back, but manpower shortages are still rife and remain cause for concern

- Singapore Airlines, AirAsia, Bamboo Airways, Vietjet, Vietravel Airlines restarted cabin crew recruitment
- All 740 pilots on leave under AirAsia Malaysia will be reactivated
- Airports of Thailand warn of operational chaos if passenger volume picks up out of sync with hiring for ground handling and passenger services

## Governments recognise that upskilling workers is key to retention in the industry

- Singapore's Service Industry Transformation Programme makes lifestyle sector enterprises more productive and manpower-efficient, funding up to 90% for SMEs
- The Hotel Industry Transformation Map (ITM) 2025 wants to future-proof the industry through creating jobs in emerging areas such as wellness, sustainability, and technology

## Efforts are being made to attract young talent to the industry

- Marina Bay Sands has launched a bond-free scholarship programme worth USD\$1 million
- Cambodia will establish 2 National Vocational Tourism Schools, Indonesia 2 Tourism Polytechnics
- Thailand's NIDA has recommended a skills development fund for the tourism industry

# China Holds the Keys to Recovery for Southeast Asia



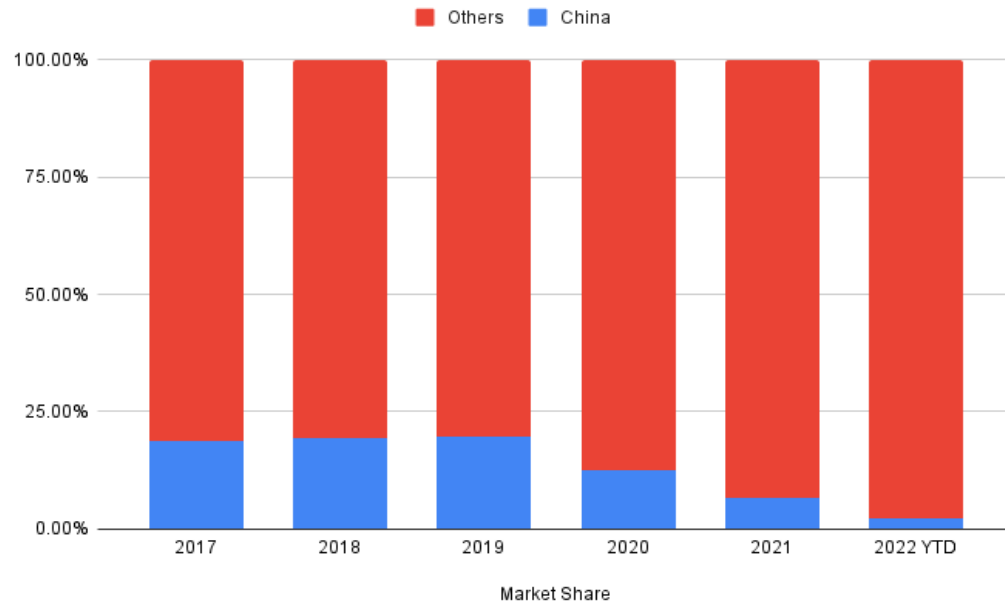
20 million

Thailand's initial forecasted 2023 int'l visitors before China reopening announcement

25 million

Thailand's forecasted 2023 int'l visitors after China's reopening announcement

## China's share of total int'l visitors for Indonesia, Malaysia, Singapore and Thailand (%)



## China's 8 January reopening will be a game-changer

- China's announcement of removing quarantine and tests for returning travellers has opened up FIT travel outbound travel once again
- However, timing for group travel resumption is still not laid out
- VFR and business travel is the most likely segment to resume in 1Q 2023, whilst passport applications and testing restrictions imposed on Chinese visitors may slow down outbound travel initially

## China's overall international arrivals into SEA in 1Q-3Q 2022 were very low, hovering around 2%

- China's revival of outbound tourism into Southeast Asia is critical for a full recovery for all sectors, whether airlines, airports or accommodation

## Chinese travellers have very different expectations for booking - are Southeast Asian suppliers ready?

- Chinese travellers are mobile first when it comes to travel bookings, with apps such as WeChat and Weibo key. OTA mobile bookings are forecasted to reach USD\$76 billion in 2025
- SEA suppliers will need to adapt to this need, fast, to be China-ready
- The STB already collaborate with the Ant Group for a mini program in WeChat, Passion Made Possible Privileges

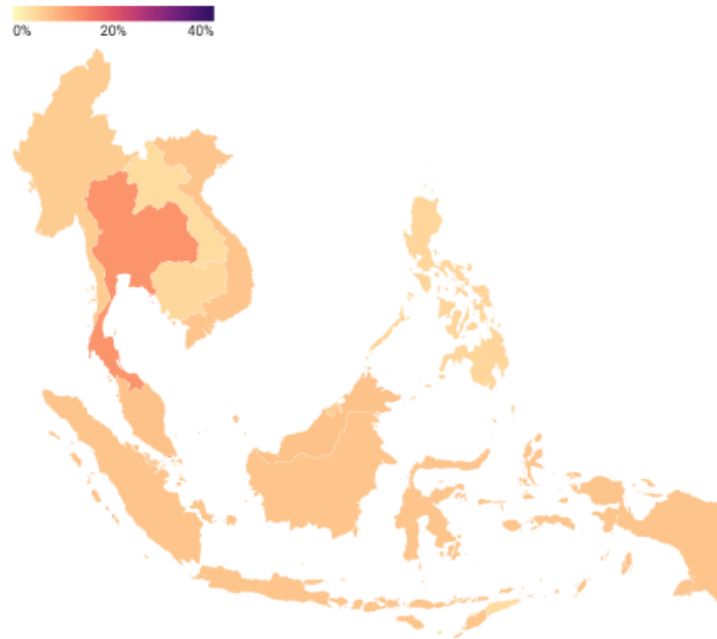
## There are downsides to a Chinese traveller resurgence for the region

- A sudden surge of visitors could put increasing pressure on manpower and capacity, causing similar chaos to that experienced in Europe and North America
- A demand from Chinese airlines for jet fuel could also send prices skywards
- As China returns, SE Asian governments will need to take a long, hard look at whether their talk of quality vs quantity tourists is just that - talk

# Aging Asia Presents an Untapped Opportunity

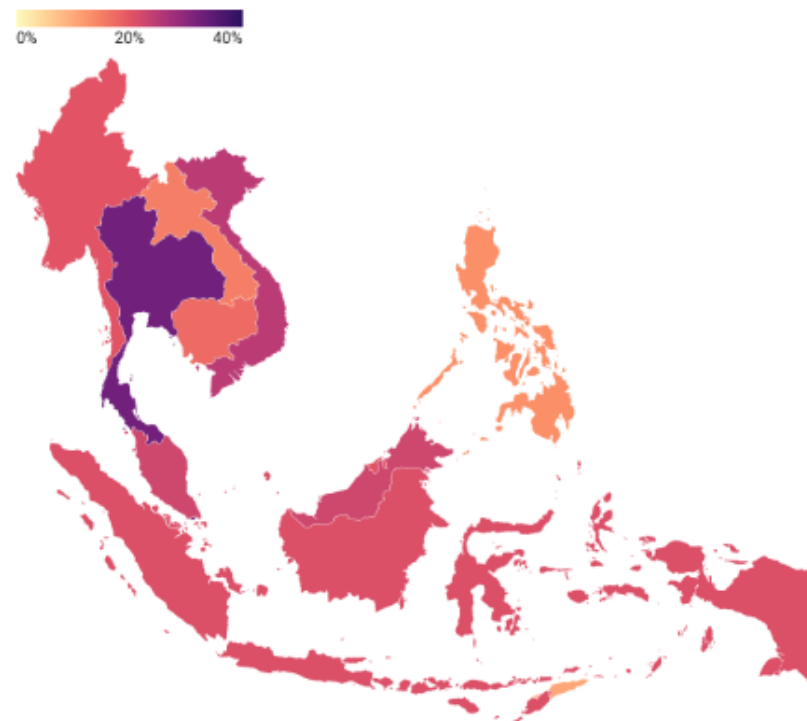


Percentage of Population Aged 65 and Older in 2020



Created with Datawrapper

Percentage of Population Aged 65 and Older in 2060



Created with Datawrapper

## 1 in 5 of Southeast Asia's population will be over 65 years old by 2060

- The expansion of the ageing population in Vietnam and Thailand will be rapid, whilst in Indonesia it will be slower
- Indonesia will have the world's 6th largest older population, Thailand 12th and Vietnam 15th
- Along with an ageing population will come associated issues such as accessibility, which will impact travel potential

## Limited tourism infrastructure implementation to cater to this trend - so far

- Singapore's Asian Civilisations Museum and National Gallery Singapore run senior-friendly programs
- Changi Airport Group to launch initiatives to support passengers with invisible disabilities, such as dementia
- The Philippines' Tourism Secretary advocating for accessibility for passengers with disabilities (PWDs) at gateways and transport hubs, as part of Barrier Free Tourism campaign

# Medical Tourism Rising in Tandem with Int'l Tourists

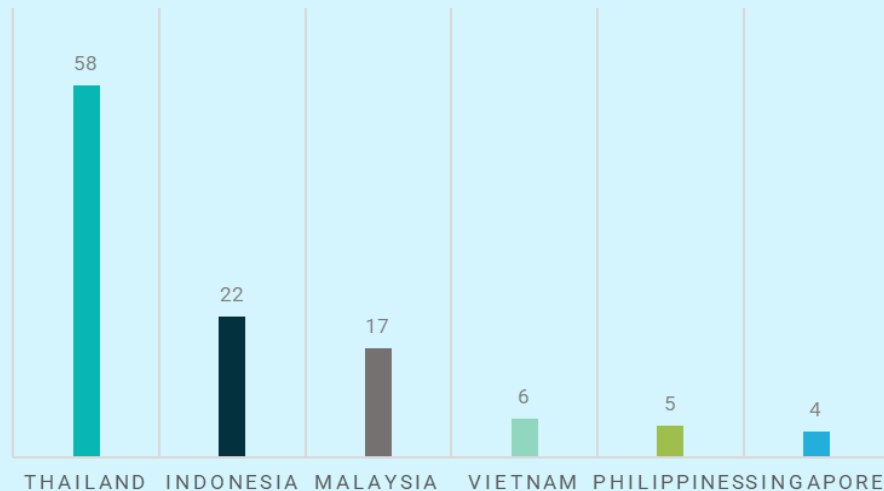


## RM2 billion

Malaysia's goal for medical tourism revenue by 2025

Source: MHTC

### Number of JCI Gold Seal Hospitals & Healthcare Organisations in Southeast Asia



Source: JCI

### Medical tourism is seen as a vital revenue generating activity for Thailand, Indonesia and Malaysia as tourism recovers

- Malaysia Healthcare Travel council are aiming for RM1 billion revenue in 2022, rising to RM2 billion by 2025
- Indonesia wants to capture 4-8% of Indonesian's outbound medical spend at its new medical tourism hub in Sanur, Bali by 2030
- Thailand is planning to launch a 1-year medical treatment visa, with valid treatments include anti-ageing and cosmetic surgery procedures

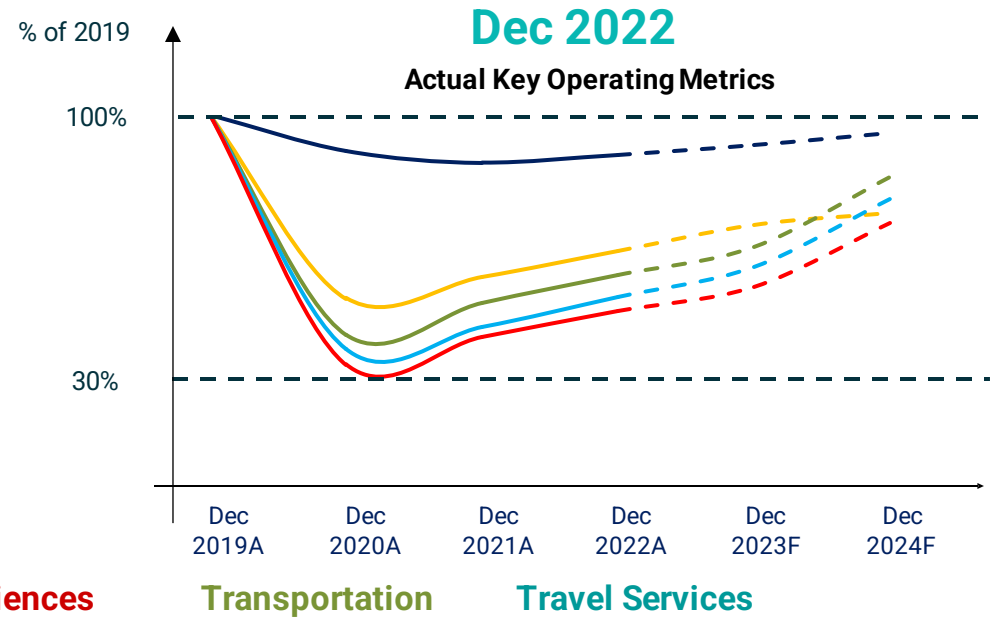
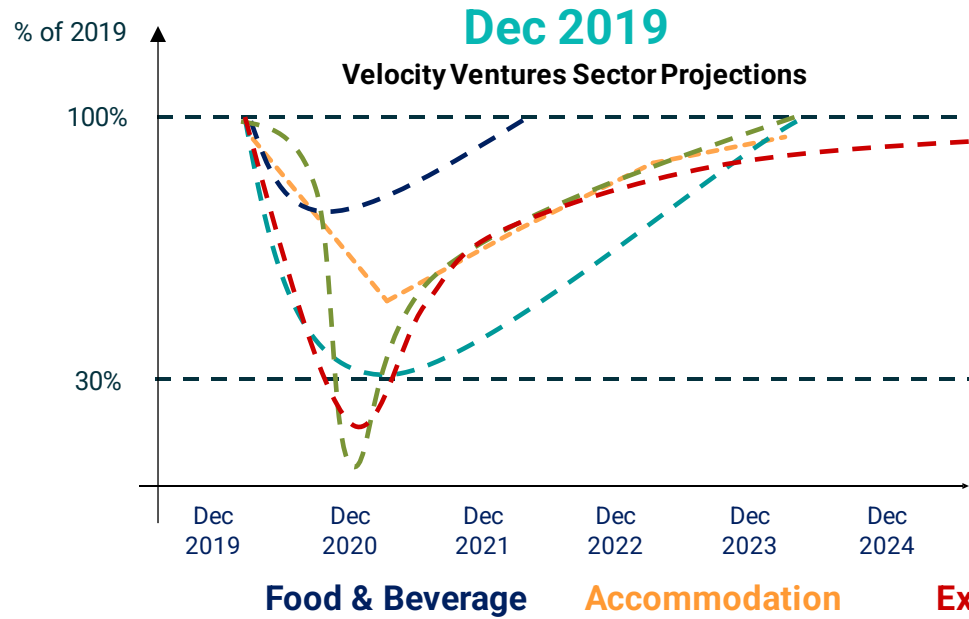
### Hotels are increasingly setting up partnerships with medical centres to offer complete medical tourism packages

- BDMS Wellness Clinic Retreat launched at Anantara Riverside Bangkok Resort
- Hua Hin launched Chevala Wellness Hub in partnership with the InterContinental Resort
- The Thanh Hang Beauty Medi health, hospitality, and aesthetic centre at NovaWorld Phan Thiet, is planned in Vietnam

### Thailand in 2019 had the highest proportion of foreign patient aesthetic surgery procedures worldwide, 33.2%

- This dropped to fourth at 20.9% in 2020, but remains high
- Out of 154,547 aesthetic procedures in 2020, 34% of these were non-surgical, such as botox or hair removal

# Industry Recovery: VV Forecast vs. Actuals



## Forecasts

Jul 2020

We anticipated domestic travel to rebound faster and harder than international travel.

21 months



Jul 2021

We included "Consumer Data Analytics & Artificial Intelligence" as one of our Top 3 Investment Picks in 2H2021's Strategy Notes

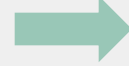
15 months



Jun 2022

"Social media sentiments analytics" was included as one of the investment thesis for 2H2022

6 months



## Actuals

In 2022, domestic traveller numbers improved to 93% of 2019 levels while international traveller numbers only improved to 69%

Mar 2022

69% of business leaders used data in 2022 to shape the customer experience  
Zytlyn, a demand prediction platform and Velocity Ventures' portfolio company, gained excellent market traction from leading industry players

Sep 2022

87% of millennial travellers consulted social media as one of their first stops for travel inspiration

Nov 2022

# Travel & Hospitality Pain Points

Post COVID-19 recovery exposing legacy issues and industry challenges



Managing labour shortages, turnover, onboarding, training, and **changing employee expectations**



Introducing genuine **decarbonisation initiatives** and meeting customer **sustainability expectations**



**Being China Ready**, ensuring compatibility with the Chinese tech ecosystem for when their tourism market returns



Dealing with a wide range of **technology options**, navigating integrations and quickly adopting them



Incorporating **influencers and emerging social media platforms** and responding to rapidly **changing distribution models** with the growing influence of super apps and search engines



Leveraging data generated from digitalization to **know more about the traveller & consumer**



Adapting to the **blurring boundaries** of work and leisure; home and away



**Forecasting demand** in a more unstable world



Evolving product to appeal to **new age customer demands** such as **wellness, social-responsible and immersive tourism**



**Adjusting pricing** to manage increasing costs

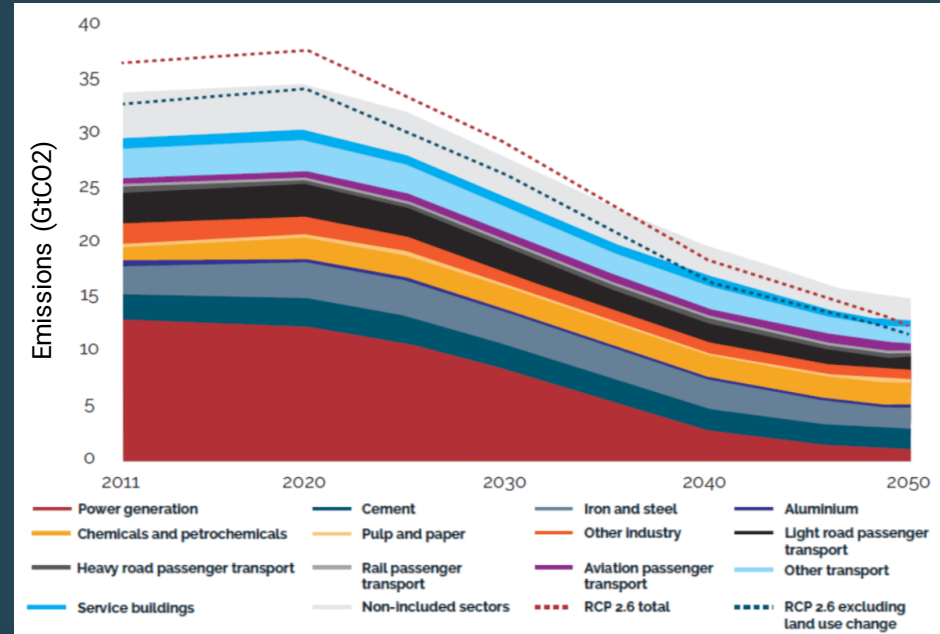
# Corporate Challenges



## Sustainability and Decarbonisation Initiatives

Pain Points	Industry Observations
Unquantifiable Green Efforts	Hilton found it tough to make measurable progress for sustainability targets, such as efficient water usage, as there are too many different systems that would have to be taken into account – Hilton
Expensive green alternatives	Airlines aren't buying Sustainable Air Fuels (SAFs) in bulk due to the high costs, and as a result, very little is being produced. If Delta Airlines filled all its planes for one day, the carrier would use a year's worth of US SAF supply. – Delta Airlines
Imbalances with operational needs	Though the company is conscious about reducing waste and try to use as little packaging as possible, sometimes more packaging is required so the food arrives to the customer without any issues – Les Amis Group
Say-do gap amongst travelers	While consumers have a lot of power in rewarding companies that are addressing climate change, not all travelers are going to consider the environmental impacts of their travels – G Adventures

## Emissions Targets Till 2050



The global hotel industry will need to reduce its GHG emissions per room per year by 66% from 2010 levels by 2030, and 90% by 2050. This is above and beyond what most hotel companies have set for carbon targets thus far.

Source: ITP Hotel Decarbonisation Report

# Corporate Challenges



## Influencers and Emerging Social Media Platforms

Pain Points	Industry Observations
Using Outdated Channels to Reach Consumers	<p>“The TikTok community is already actively engaged in travel content – #travel has more than 90 billion views – so it is a natural fit for Booking.com to be an active part of this,”</p> <p>– Booking.com</p>
Lack of Tech Capabilities in SMEs	<p>We continue to invest in tools to automate as much of that process in the back of the house as much as humanly possible, therefore allowing a much higher level of productivity.</p> <p>– Interstate Hotels &amp; Resorts</p>
Obsolete Traveler Profiling	<p>The world – and the hospitality industry – went through so much in the last two years. Travelers’ needs and interests have shifted too.</p> <p>– Hilton</p>
Lack of Targeted & Authentic Marketing	<p>Through a series of tests across 9 months, Air France discovered that User Generated Content powered ads performed better than their regular stock image ads across key metrics, specifically a higher conversion rate.</p> <p>– Air France</p>

## More Travellers Use Social Media

**67%** of travellers use Instagram to find inspiration for trips

**74%** of travellers use social media while on vacation

**97%** of Millennials share photos while travelling

The next-gen demographic is made up of 151 million Millennials and Gen Zs who are plugged in and social-media savvy. It is now even more important for brands to consider new solutions to reach an active audience of consumers on the move.

Source: MDG Advertising

# Corporate Challenges

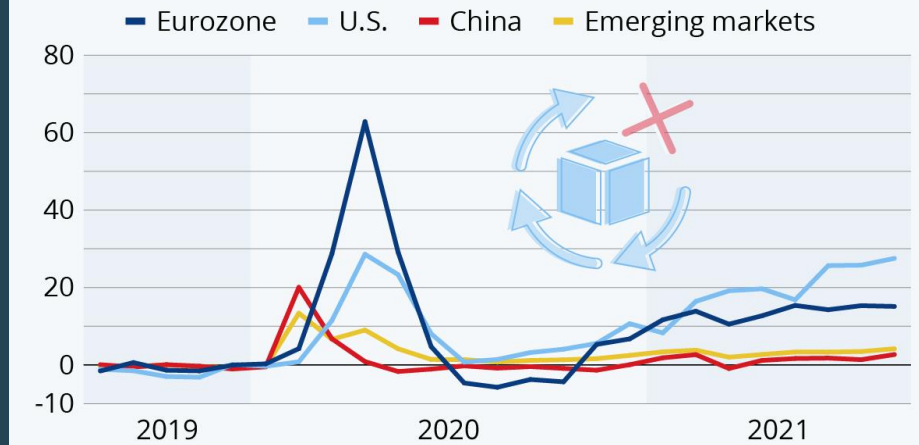


## Adjusting Pricing to Manage Increasing Costs

Pain Points	Industry Observations
Irresponsive Supply Chains	<p>The food-away-from-home supply chain is under significant pressure. Problem lies in demand outstripping supply in certain categories. Some of the suppliers Sysco works with have been having a hard time filling orders, leaving Sysco short on certain products.</p> <p>– Sysco</p>
Inflexible Operation Flow	<p>The business is seeing delays and stalls in production of aircrafts. Much of this lies in “traveled work” (installation of parts after the rest of the planes are completed and rolled out), which results in some disassembly and rework on aircrafts.</p> <p>– Boeing</p>
Lack of Omnichannel Order Fulfilment	<p>The hotel has had a hard time buying enough soap, shampoo, slippers, Q-tips, and many other items, being a luxury hotel, we want to offer our guests lots of amenities and need more items than many other properties.</p> <p>– The Pierre</p>
Logistical Congestions	<p>The business is being heavily affected by the congestion at ports and have had aircrafts in shipping containers sitting on boats for months.</p> <p>– Cirrus</p>

## Supply Chain Disruptions Make a Comeback

Index of global supply chain disruptions (100 = most disrupted)



Based on the difference between the supply delivery times subindex and the supply delivery times based on manufacturing output subindex (both part of the PMI)

As inflation, supply chain disruptions and geo-political tensions rise, businesses are struggling to cope with cost increases. Many of these operators will seek solutions that improves supply chain efficiencies in aim of mitigating cost hikes.

Source: IMF, Statista

# 1H 2023: Technology Investment Opportunities



Food & Beverage	Accommodation	Experiences	Travel Services	Transportation
Casual Worker Management Tools	Labour Management and Productivity Tools	Wellness & Medical Tourism	Decentralized Distribution Platforms (Blockchain)	Labour Management and Productivity Tools
Food Waste Management & Sustainability	Robotics and Automation	Socially-responsible, & Immersive Tourism	Social Commerce Enablers	Sustainable Air Fuel Platforms
Dynamic Pricing	Environmental & Energy Solutions	Engaging Digital Natives with Gamification & Augmented Reality	FX, Payments, Lending & Insurance, Buy Now Pay Later	Frictionless Travel & The Connected Journey
	Hotel Property & Customer Management Systems		Itinerary Construction Platforms	
			Specialist OTAs – Domestic, Staycations, Health	

# Start-Up Opportunities



## Sustainability

Investment Thesis	Startup Opportunities
Solutions Converting Outputs into Measurable and Auditable Data	
Efficiency Tools for Green Solutions	
Adaptive Green Solutions Tailoring to Specific Operational Needs	
Solutions Facilitating Green Messaging and Conversions to Action	

## Social Commerce Enablers

Investment Thesis	Startup Opportunities
Influencer Marketing Agencies	
Digital Solutions for Direct Bookings	
Customer Sentiment Analytics and Profiling	
AI-Driven Personalization Tools	

# Start-Up Opportunities



## Specialized OTAs

Investment Thesis	Startup Opportunities
Medical Tourism OTAs	
Niche Hobbies Discovery and Booking Platforms	
Domestic Tour Platforms	
Short-term Stay Discovery and Booking Platforms	

## Dynamic Pricing

Investment Thesis	Startup Opportunities
Automated Price Optimization Engines	
Predictive Analytics	
Integrated Dynamic Pricing Solutions	
Real-time Market Monitoring and Analytics	

# Investment Universe



Food & Beverage	Accommodation	Experiences	Travel Services	Transportation
<p><b>Sustainable Packaging</b></p> <p>Alternative Proteins <b>Food Safety &amp; Traceability</b></p> <p><b>Customer Feedback</b></p> <p>Contactless/Voice Ordering &amp; Payment</p> <p><b>Labour Management &amp; Productivity Tools</b></p> <p>Food Delivery</p> <p><b>Procurement Platforms</b></p> <p><b>POS &amp; Payments</b></p> <p><b>Food Waste Management</b></p> <p>Sustainable Food</p> <p>Contactless/Voice Ordering &amp; Payment</p> <p><b>Customer Relationship Management</b></p> <p><b>Supply Chain &amp; Procurement</b></p> <p>Health &amp; Nutrition</p> <p><b>Dynamic Pricing</b></p> <p><b>Kitchen Robotics &amp; Digitization</b></p> <p>Omnichannel Restaurants</p> <p>Delivery and Cloud Kitchens</p>	<p><b>Labour Management &amp; Productivity Tools</b></p> <p>Contactless/Voice/Robo Guest Interaction Tools</p> <p><b>Alternative Holiday Accommodation</b></p> <p>Wi-Fi 6</p> <p>Smart Living <b>Revenue Management System</b></p> <p>Distribution platforms</p> <p><b>Digital Nomads &amp; Co-living Community</b></p> <p>Cleaning, Air Quality and Environmental</p> <p><b>Hotel Property &amp; Customer Management System</b></p> <p>Loyalty platforms</p> <p>Remote Working</p> <p><b>Environmental &amp; Energy Solutions</b></p> <p>Local Event Engagement Platforms</p> <p>Experiential Accommodation</p> <p><b>Robotics &amp; Automation</b></p>	<p>Digital/Contactless Customer Experience</p> <p><b>Yield Management Software</b></p> <p>Personalised Shopping</p> <p>Virtual Tours</p> <p><b>Distribution &amp; Aggregation Platforms</b></p> <p>Contactless Retail Experience</p> <p>Event Organisation</p> <p><b>Wellness Tours &amp; Experiences</b></p> <p>Customer Engagement &amp; Retention</p> <p><b>Wearables &amp; Alternative Payment IOT Devices</b></p> <p>MICE Planning &amp; Management</p> <p><b>Gamification, Immersive Theatres &amp; Augmented Sites</b></p> <p>Digital and Franchise Tour Models</p> <p>Hybrid Events &amp; Metaverse</p> <p>NFTs</p>	<p>Airport Check-In</p> <p><b>Consumer Data Analytics &amp; AI</b></p> <p><b>Tour Booking &amp; Tour Guide Empowerment</b></p> <p><b>FX, Payments, Lending &amp; Insurance, Buy Now Pay Later</b></p> <p>Health Passport &amp; Digital Identity</p> <p><b>Telecommunication &amp; Roaming Service</b></p> <p>On Demand Covid-19 Testing</p> <p><b>Demand Engines for Direct Bookings</b></p> <p>Social Media Marketing</p> <p><b>Specialist OTAs</b></p> <p><b>Decentralized Distribution Platforms (Blockchain)</b></p> <p>Cross-Language Communications</p> <p><b>Itinerary Construction Platforms</b></p> <p>Remote Travelling through Live Streaming</p> <p><b>Social Commerce Enablers</b></p>	<p><b>Facial Recognition Software</b></p> <p>Co-Ownership &amp; Sharing Mobility Platforms</p> <p><b>Carbon Reducing &amp; Offsetting</b></p> <p>Digital Duty Free</p> <p><b>Frictionless Travel</b></p> <p><b>Sustainable Air Fuel</b></p> <p>Digital/Contactless Customer Experience</p> <p>Road Traffic Analysis</p> <p><b>Air Ticket Distribution</b></p> <p><b>Mobility-as-a-Service</b></p> <p>Air Cargo Handling</p> <p><b>Loyalty Program Disruptors</b></p> <p>Last Mile Delivery</p> <p>Seamless End-to-End Tracking</p> <p><b>Labour Solutions</b></p> <p><b>Autonomous Aircraft Servicing</b></p>

Invested      Investible Areas      Less Investible Areas

# Key Catalysts & Risks



## Key Catalysts

- Reversal in the current rise of energy prices
- Curbed inflation
- Re-opening and continued easing of travel restrictions of China boosting tourism recovery
- Accelerated adoption of technology due to corporate balance sheets improving

## Key Risks

- Lack of corporate governance causing systemic risks in the startup ecosystem
- Rise in unemployment and the outflow of talent from tech startups
- Decelerating global growth and high probability of recession in major economies
- High interest rates increasing business risks and dampening business outlook
- Heightened geopolitical tensions causing fragmentation in production and distribution



# CONTACT US

[ReachUs@VelocityVentures.vc](mailto:ReachUs@VelocityVentures.vc)

[www.VelocityVentures.vc](http://www.VelocityVentures.vc)

Follow us:  



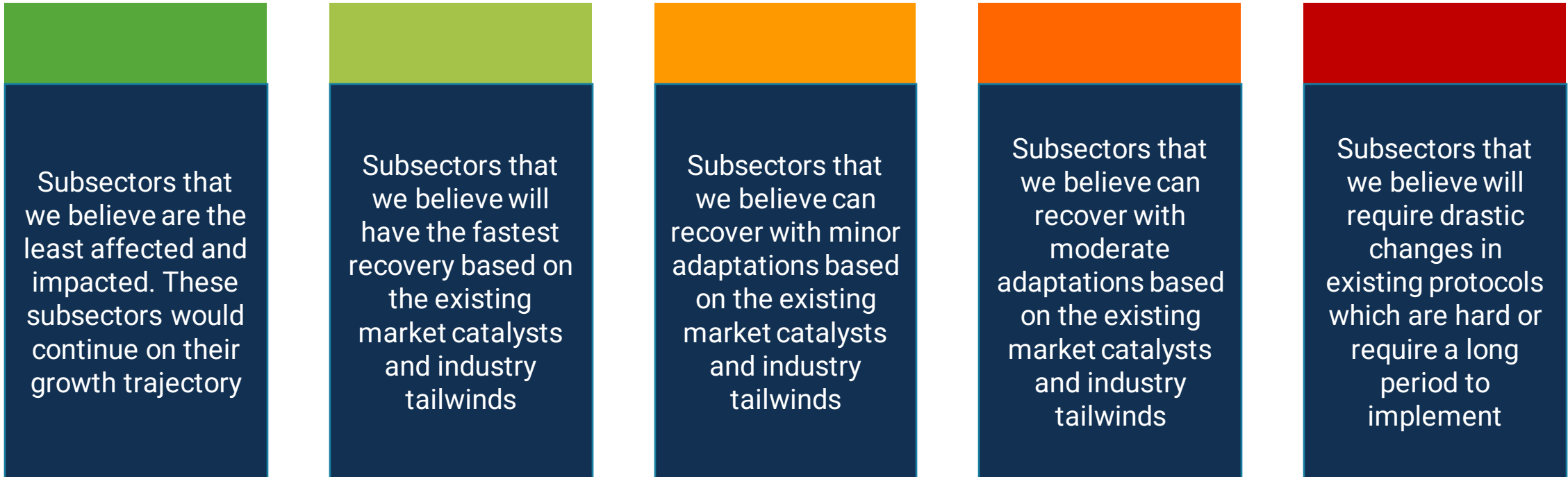
# APPENDIX

---

# Investment Focus Criteria



In building up the investment heatmap, we have set a color-coded filter process in which we have taken a stance as to the recovery and growth of the individual subsector within each vertical. These subsectors will be placed within the following 5 subcategories.



# References



- <https://www.straitstimes.com/singapore/aviation-sector-set-to-restore-workforce-by-up-to-90-of-pre-covid-19-level-by-year-end> <https://www.channelnewsasia.com/singapore/singapore-tourism-recovery-support-stb-covid-19-singaporeimagine-grants-2610691>
- <https://www.stb.gov.sg/content/stb/en/media-centre/media-releases/Launch-of-the-Hotel-Sustainability-Roadmap-by-STB-and-SHA.html>
- <https://www.travelweekly-asia.com/Travel-News/Airline-News/As-air-travel-comes-back-so-are-more-luggages-getting-lost>
- <https://downloads.siteminder.com/en/global-top-booking-revenue-makers-2021.pdf>
- <https://downloads.siteminder.com/en/global-top-booking-revenue-makers-2020.pdf>
- <https://www.philstar.com/business/stock-commentary/2022/05/13/2180837/cebu-pacific-q1-profit-shrank-4-stuck-no-mansland-recovery>
- <https://www.bain.com/insights/unpacking-asia-pacific-consumers-new-love-affair-with-sustainability/>
- <https://tradingeconomics.com/thailand/consumer-confidence>
- <https://www.travelnewsasia.com/news22/86-HattenHotels.shtml>
- <https://news.sap.com/sea/2022/06/sap-concur-survey-sustainable-travel-a-focus-for-86-percent-of-asia-pacific-businesses/>
- <https://www.iata.org/en/publications/economics/fuel-monitor/>
- [https://www.channelnewsasia.com/singapore/changi-airport-terminal-4-reopen-september-2022-travel-covid-19-2739131?cid=cna\\_flip\\_070214](https://www.channelnewsasia.com/singapore/changi-airport-terminal-4-reopen-september-2022-travel-covid-19-2739131?cid=cna_flip_070214)
- <https://wtcc.org/Research/Economic-Impact>
- <https://www.theedgemarkets.com/article/tourism-sector-needs-15000-20000-more-workers-says-nancy>
- [https://support.airasia.com/s/article/COUNTER-CHECK-IN-SERVICE-IN-MALAYSIA?language=en\\_GB#:~:text=This%20is%20an%20integral%20part,the%20super%20app%20and%20website.](https://support.airasia.com/s/article/COUNTER-CHECK-IN-SERVICE-IN-MALAYSIA?language=en_GB#:~:text=This%20is%20an%20integral%20part,the%20super%20app%20and%20website.)
- <https://www.philstar.com/headlines/2021/07/19/2113499/contact-less-clark-terminal-launched>
- <https://www.ttgasia.com/2022/01/11/indonesia-unveils-carbon-calculator-tool-to-spur-climate-action/>
- <https://simpleflying.com/singapore-airlines-launches-saf-credit/>
- <https://www.ttgasia.com/2022/04/18/booking-com-reveals-the-trends-shaping-sustainable-travel-in-2022/>
- <https://www.cnbcindonesia.com/news/20220419163432-4332897/fix-tiket-pesawat-naik-gara-gara-harga-avtur>
- <https://www.malaymail.com/news/money/2022/03/05/airasia-malaysia-brings-back-fuel-surcharges-due-to-escalating-fuel-prices/2045543>
- <https://www.bworldonline.com/top-stories/2022/06/02/452399/local-airlines-optimistic-on-travel-demand-despite-spike-in-fuel-surcharge/>
- <https://vietnaminsider.vn/vietnamese-airlines-have-not-been-recovered-due-to-the-lack-of-international-passengers/>
- <https://www.bworldonline.com/corporate/2022/04/21/443404/fuel-surcharge-level-to-remain-unchanged-in-may/>
- <https://www.bangkokpost.com/business/2295646/mice-industry-eyes-2022-comeback>
- [https://www.channelnewsasia.com/business/singapore-tourism-board-mice-industry-full-recovery-expected-2720521?cid=cna\\_flip\\_070214](https://www.channelnewsasia.com/business/singapore-tourism-board-mice-industry-full-recovery-expected-2720521?cid=cna_flip_070214)
- <https://www.antaranews.com/berita/2776269/menparekraf-bersama-dokter-indonesia-kembangkan-health-tourism>
- <https://nasional.kontan.co.id/news/bangun-rs-internasional-jokowi-cegah-potensi-kehilangan-rp-97-triliun-per-tahun>
- <https://www.straitstimes.com/business/economy/this-is-why-airline-tickets-prices-are-sky-high-right-now>
- <https://www.republika.co.id/berita/ra6ggl463/sector-pariwisata-di-kuartal-kedua-2022-diprediksi-terus-membaik>
- <https://www.channelnewsasia.com/singapore/big-read-food-beverage-manpower-woes-eateries-robots-covid-19-2630486>
- <https://www.neste.com/releases-and-news/renewable-solutions/malaysia-airlines-flies-its-first-passenger-flight-neste-my-sustainable-aviation-fuel-supplied>
- <https://www.caas.gov.sg/who-we-are/newsroom/Detail/singapore-takes-key-step-forward-to-develop-sustainable-air-hub/>
- <https://www.straitstimes.com/singapore/consumer/wellness-will-be-key-component-of-singapores-tourism-offerings-in-next-5-to-10-years-stb-chief>
- [https://globalwellnessinstitute.org/wp-content/uploads/2022/05/2022GWLCountryRankings\\_Singapore\\_FINAL\\_May16.pdf](https://globalwellnessinstitute.org/wp-content/uploads/2022/05/2022GWLCountryRankings_Singapore_FINAL_May16.pdf)
- [https://globalwellnessinstitute.org/wp-content/uploads/2022/02/GWI2022\\_GlobalWellnessEconomy\\_CountryRankings\\_Final.pdf](https://globalwellnessinstitute.org/wp-content/uploads/2022/02/GWI2022_GlobalWellnessEconomy_CountryRankings_Final.pdf)
- <https://www.itnews.asia/news/traveloka-scales-its-recommendations-with-amazon-personalize-580223>
- <https://www.computerweekly.com/news/252515674/AirAsia-taps-Google-Cloud-to-bolster-its-super-app>