



MEINHARDT

MEINHARDT – ASEAN

# Covid-19 Response Report

# Content Guide



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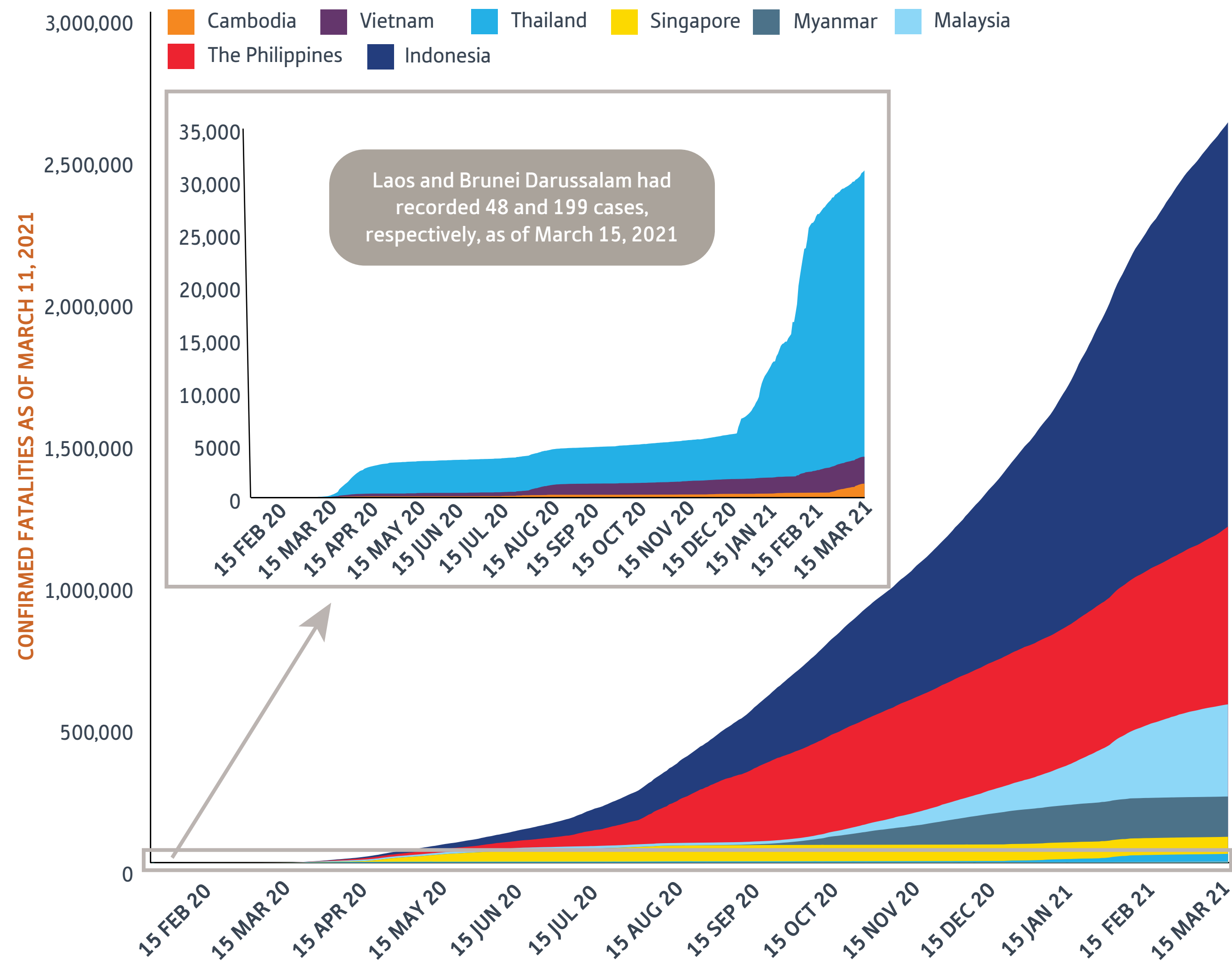
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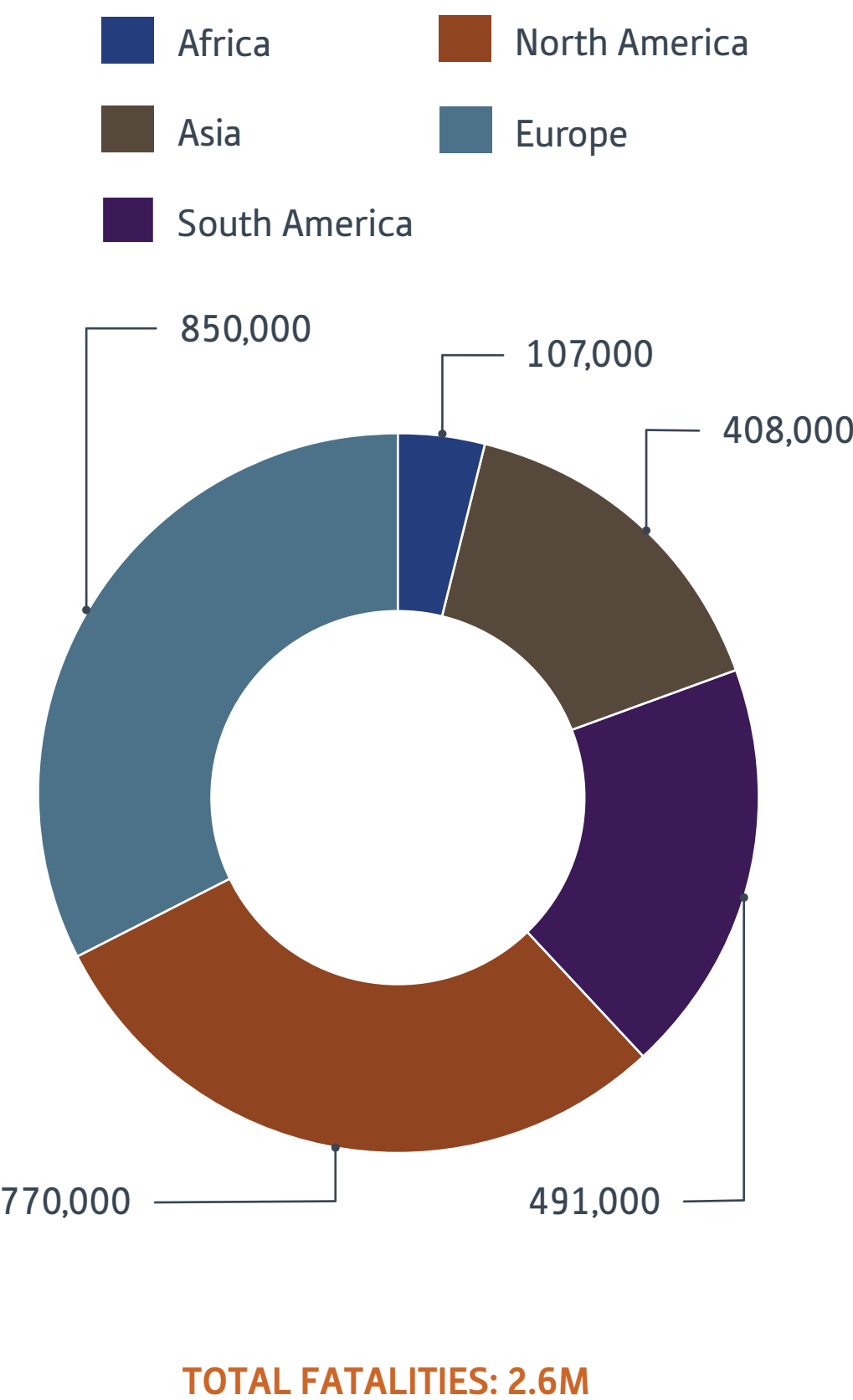
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**Reinvention**

# Covid-19 quickly spread across the globe, reaching all ASEAN members



Asia accounted for 15.5% of global\* fatalities as of March 11, 2021



\*Oceania accounted for 960 fatalities, or 0.04%

## Global distribution

Thailand was the first country outside of China – the epicentre of the novel coronavirus in November 2019 – to report a Covid-19 case, on January 13, 2020. Singapore and Vietnam confirmed their first cases on January 23, followed by Malaysia, Cambodia and the Philippines within one week. Meanwhile, the virus had begun to spread across the world, with confirmed cases in North America, Europe and Oceania by January 26. Authorities implemented varying restrictions to curb the spread of the virus and treat positive cases. One year after the World Health Organisation (WHO) declared a pandemic, Asia accounted for 21.9% of global Covid-19 cases and 15.5% of fatalities.

## Resilience

How robust was ASEAN's economic performance over the years leading up to the Covid-19 period?

To what extent did health care improvements and demographic factors protect ASEAN from the virus?

Prior to the pandemic, what was expected to drive growth in the region's construction industry?

## Response

What steps were taken to respond to the health threat, and how did the impact compare globally?

Which public sector actions offered support for construction activity across the region during 2020?

How did construction players within ASEAN respond to Covid-19-related operational challenges?

## Recovery

How promising are the prospects for short- and medium-term economic recovery across the region?

Where is the standout potential for infrastructure programmes to facilitate long-term growth in ASEAN?

What scope is there for alternative financing to support the bloc's infrastructure development agenda?

## Reinvention

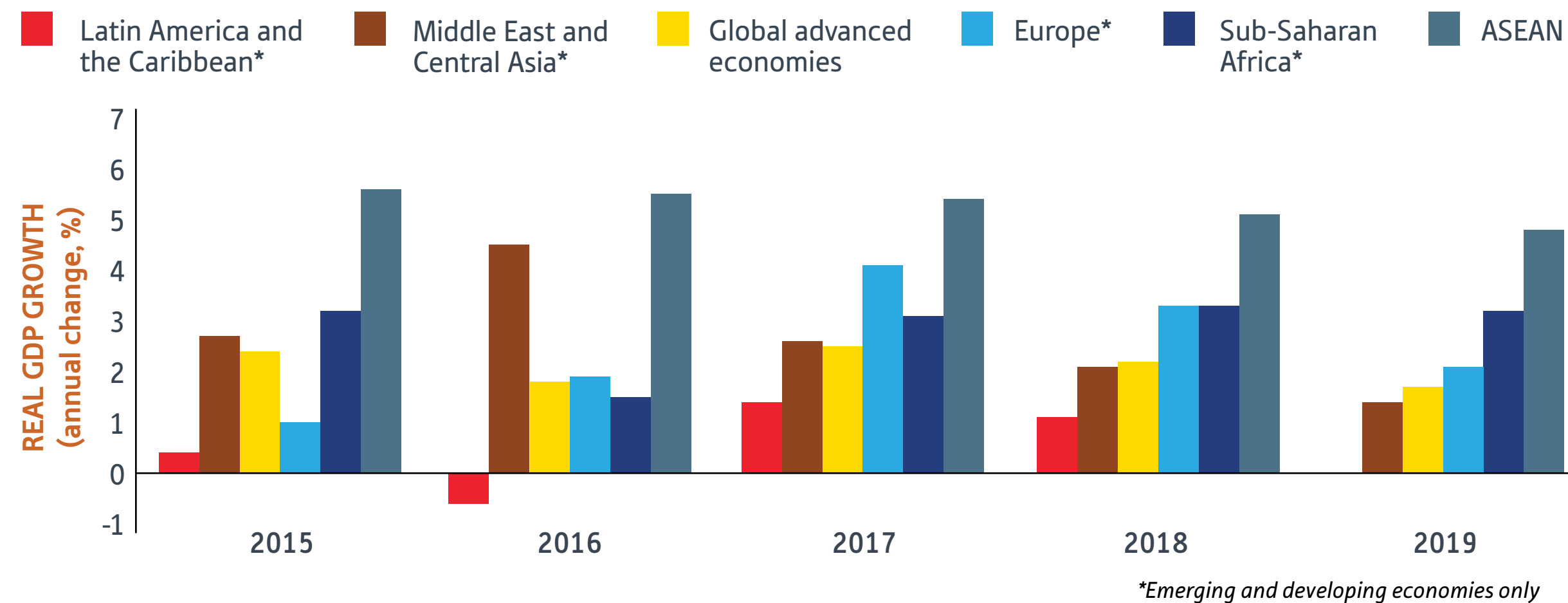
How is ongoing digitalisation expected to impact construction activity over the coming years?

In what way did the global crisis reshape demand for ESG-aligned development projects in the region?

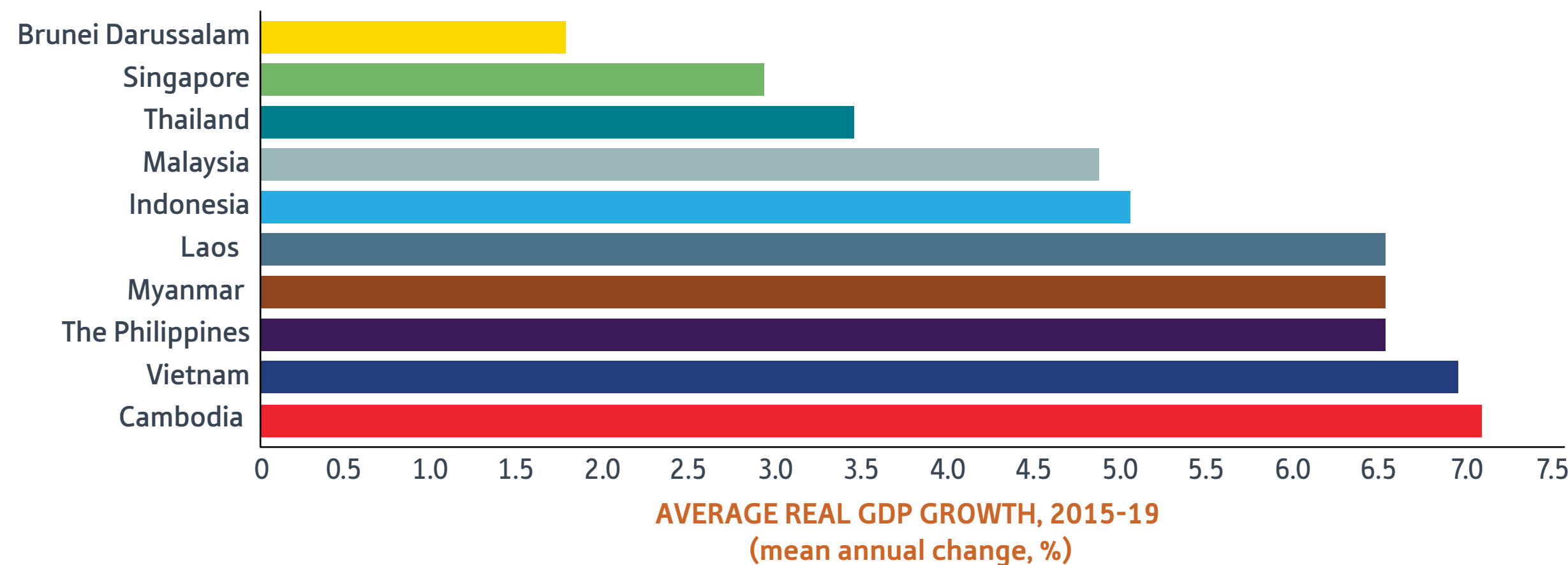
Which measures could further incentivise infrastructure investment and boost ASEAN's recovery?

# ASEAN members were amongst the best-performing economies before the pandemic

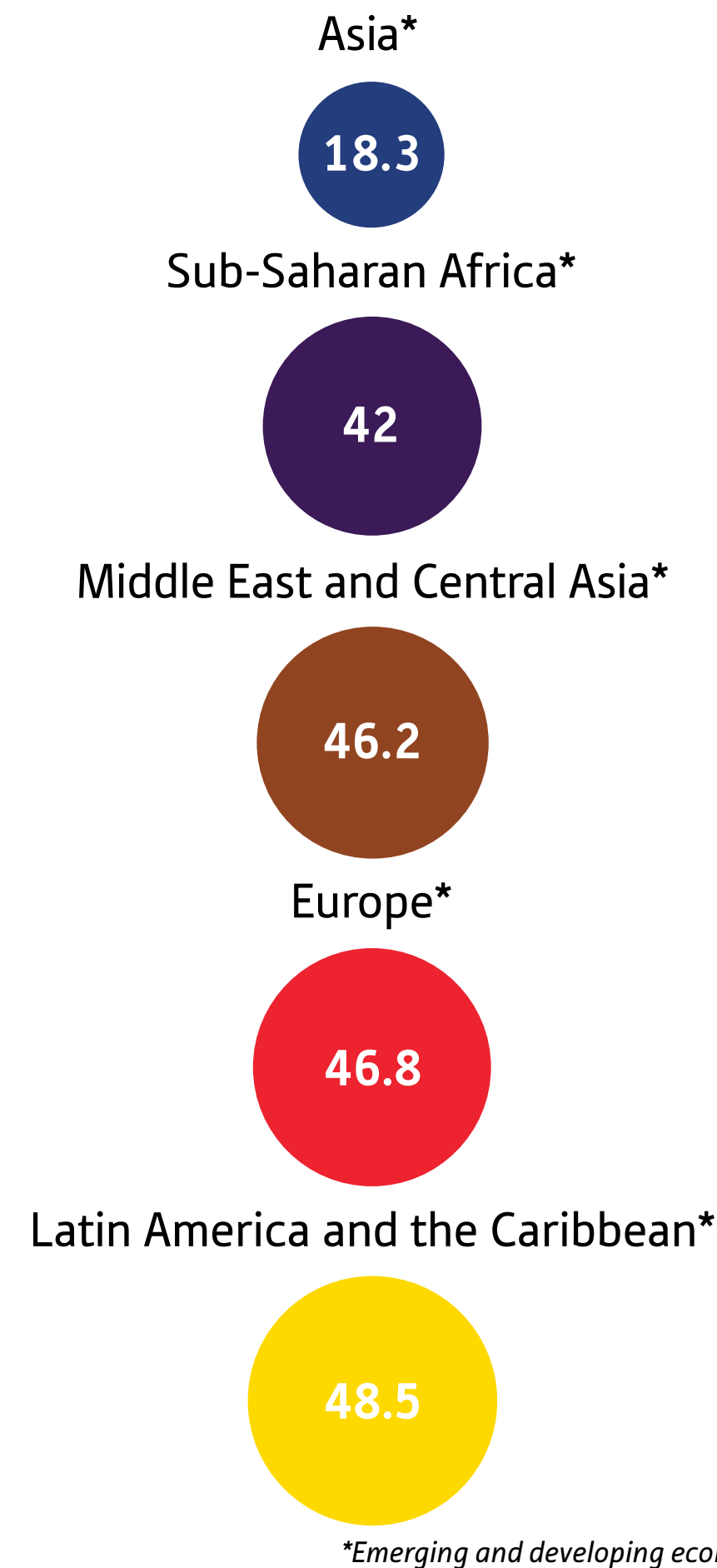
## ASEAN's GDP growth outpaced several other economic groups over 2015-19



## Five ASEAN members exceeded 6.5% average annual growth, 2015-19



## Emerging and developing Asia had low levels of external debt, end-2019 (% of GDP)



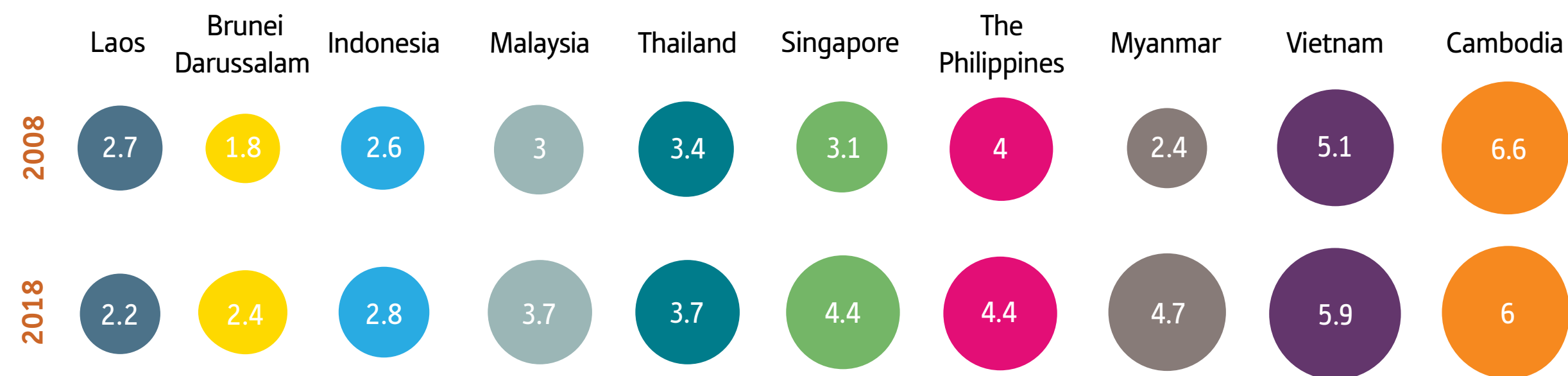
## Growth trajectory

ASEAN economies were among the best performers in the years leading up to Covid-19, averaging annual growth of 5.3% between 2015 and 2019, according to the IMF. Indeed, all members posted growth in the three years preceding the pandemic – in spite of a global slowdown between 2018 and 2019. Five of the group's 10 members had averaged an expansion above 6.5% since 2015, further underlining the region's sound macroeconomic fundamentals.

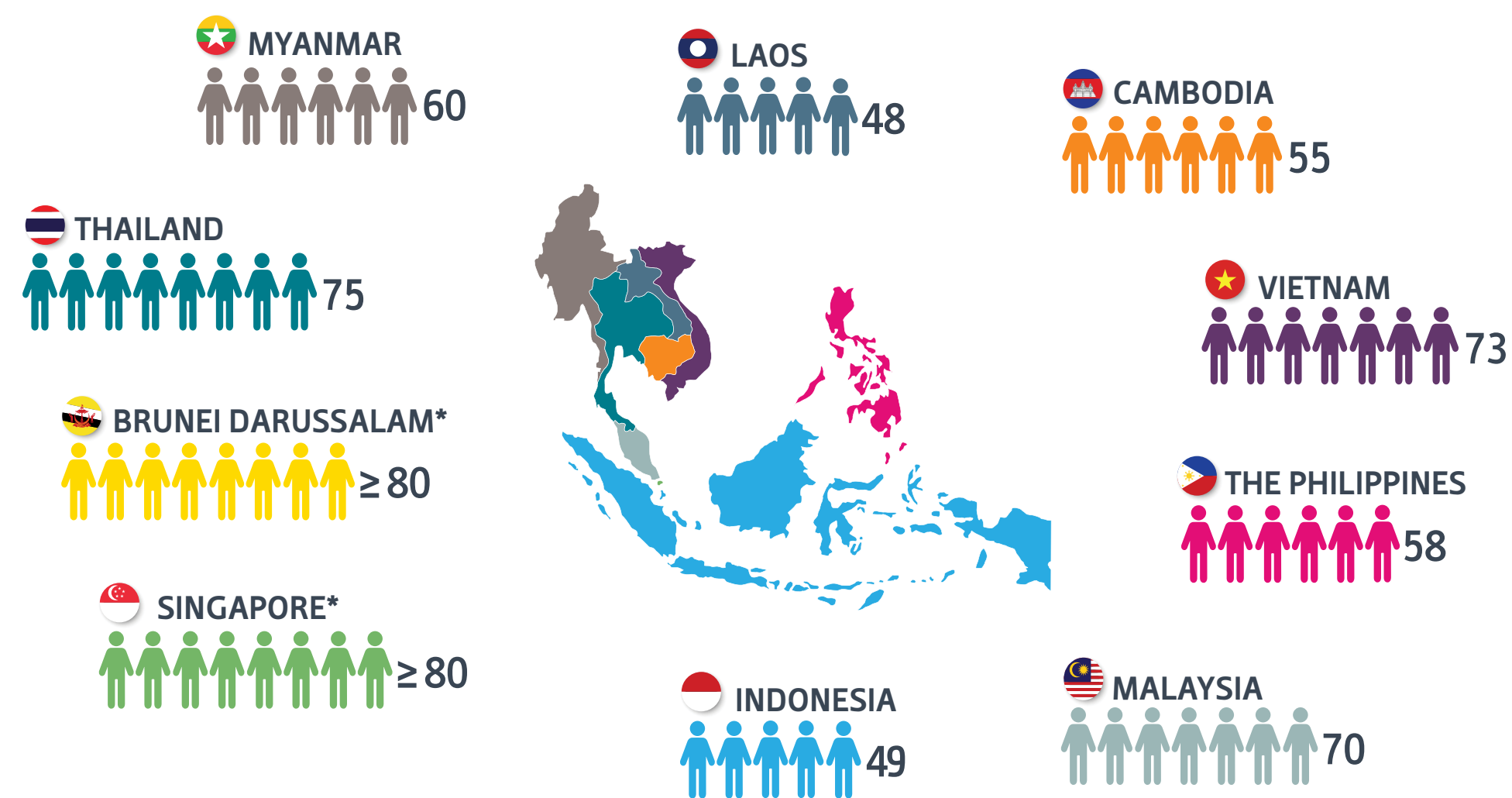
At the end of 2019, when Covid-19 was first reported, emerging and developing Asia possessed the lowest external debt-to-GDP ratio among emerging and developing regions globally.

# ASEAN saw increased health spending amid efforts to achieve universal coverage

Health expenditure, 2008-18 (% of GDP)

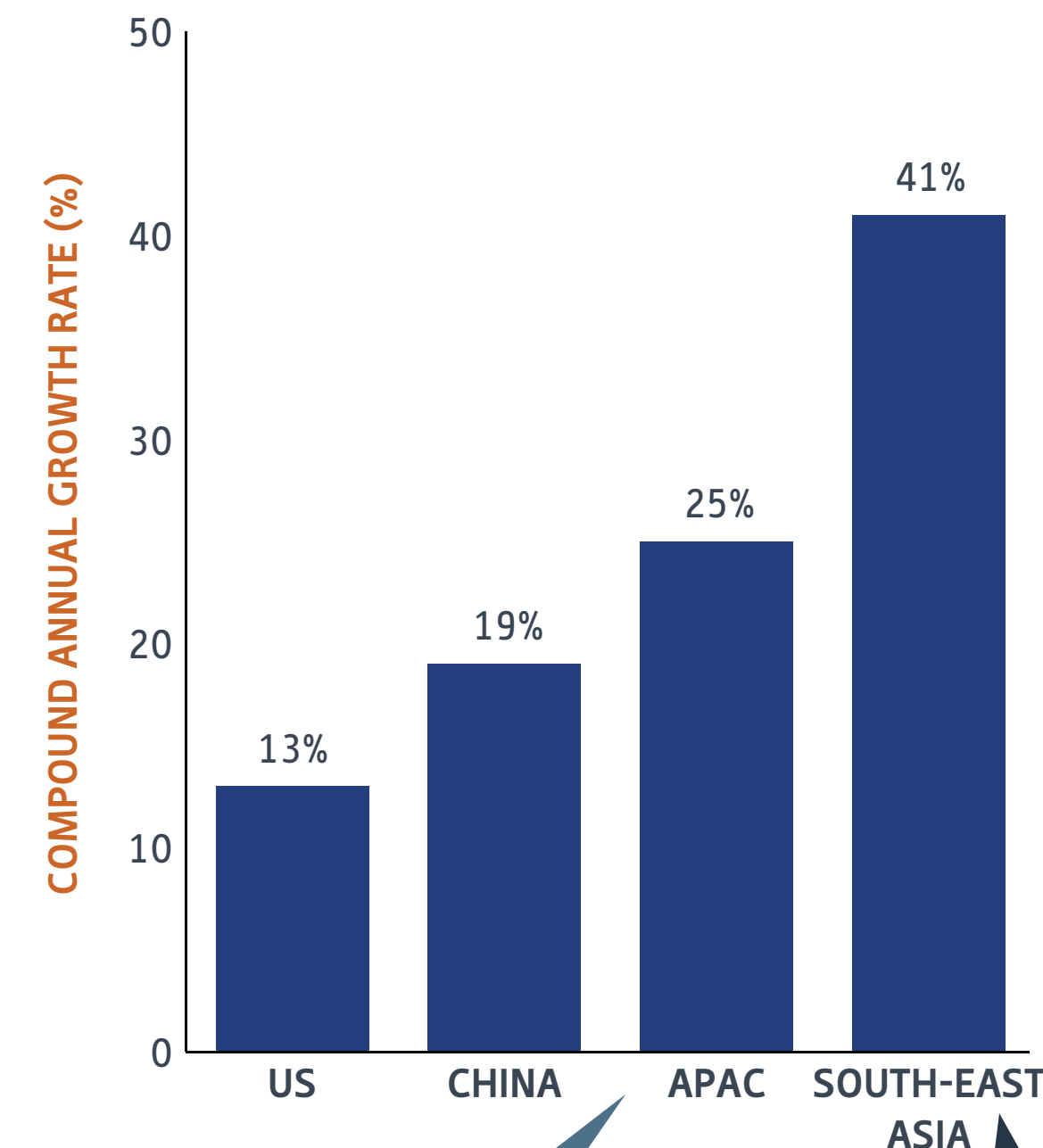


Universal health coverage prior to the pandemic, 2017 (% of population)



\*Universal health coverage is defined as population coverage of ≥ 80%

The region enjoyed substantial growth in health technology investments, 2014-19



APAC saw \$5bn of health-tech funding deployed in FY 2019, compared to \$7.4bn in the US and an estimated \$2bn in Europe

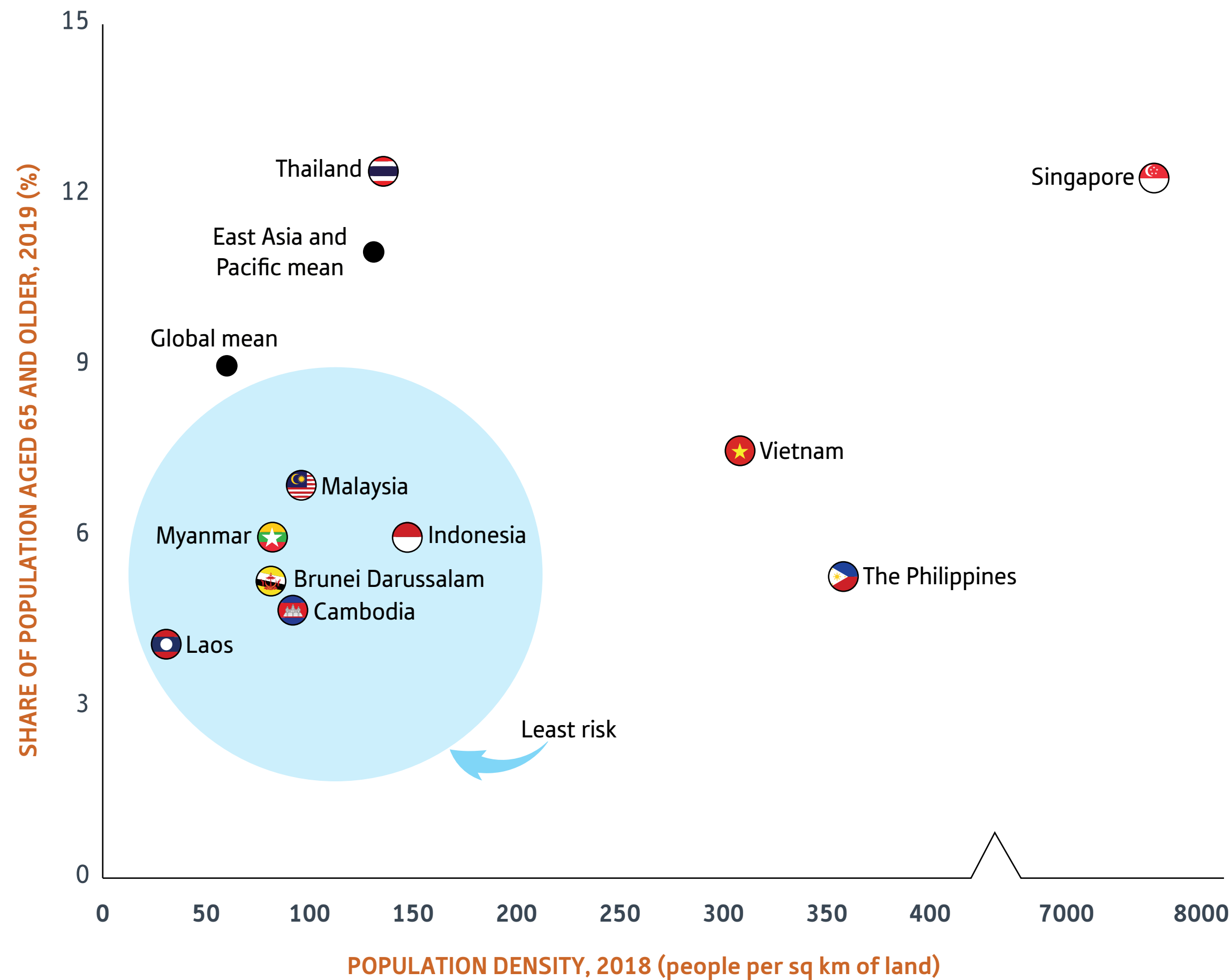
Of the region's 2019 deals, Singapore accounted for 54%, Indonesia for 15% and Vietnam for 11%

## Expanding care

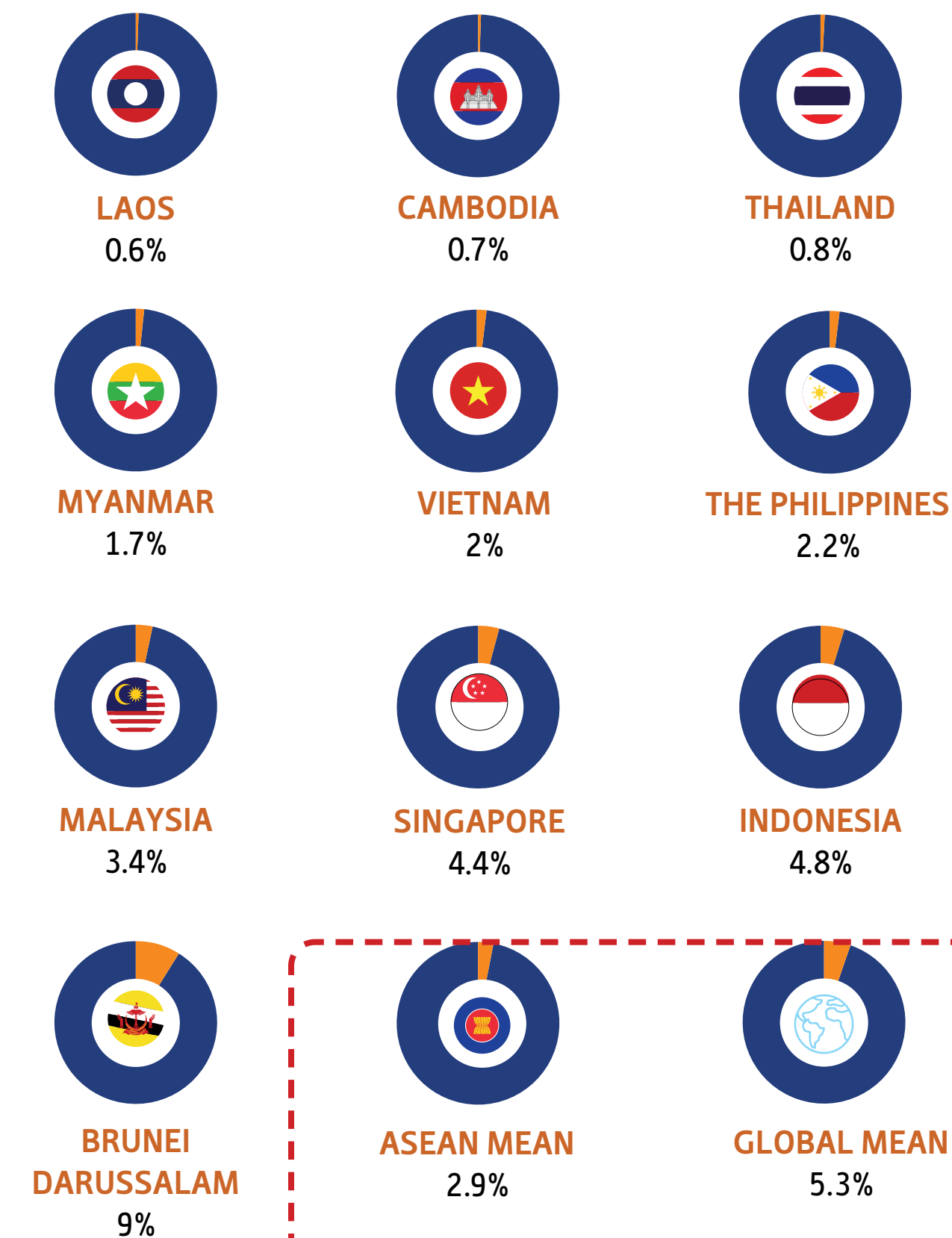
Eight of ASEAN's members increased their health expenditure over the 2008-18 period, leading to a mean ASEAN spend of approximately 4% of GDP in 2018. As a standout improvement, Myanmar's public health spending rose from 1.7% to 4.7% of GDP over the decade. Cambodia and Vietnam led the group, spending 6% and 5.9% of their respective GDP on health in 2018. With regard to expanding universal health care, half of the group had exceeded the global median of 65% population coverage by 2017. Indeed, Brunei Darussalam and Singapore had already surpassed the 80% threshold and were therefore considered to have successfully achieved universal coverage.

# ASEAN's young population and low unemployment rates created a barrier against the crisis

A young population protected ASEAN from some of the worst coronavirus impacts



ASEAN's unemployment rate was far below the global mean, 2019

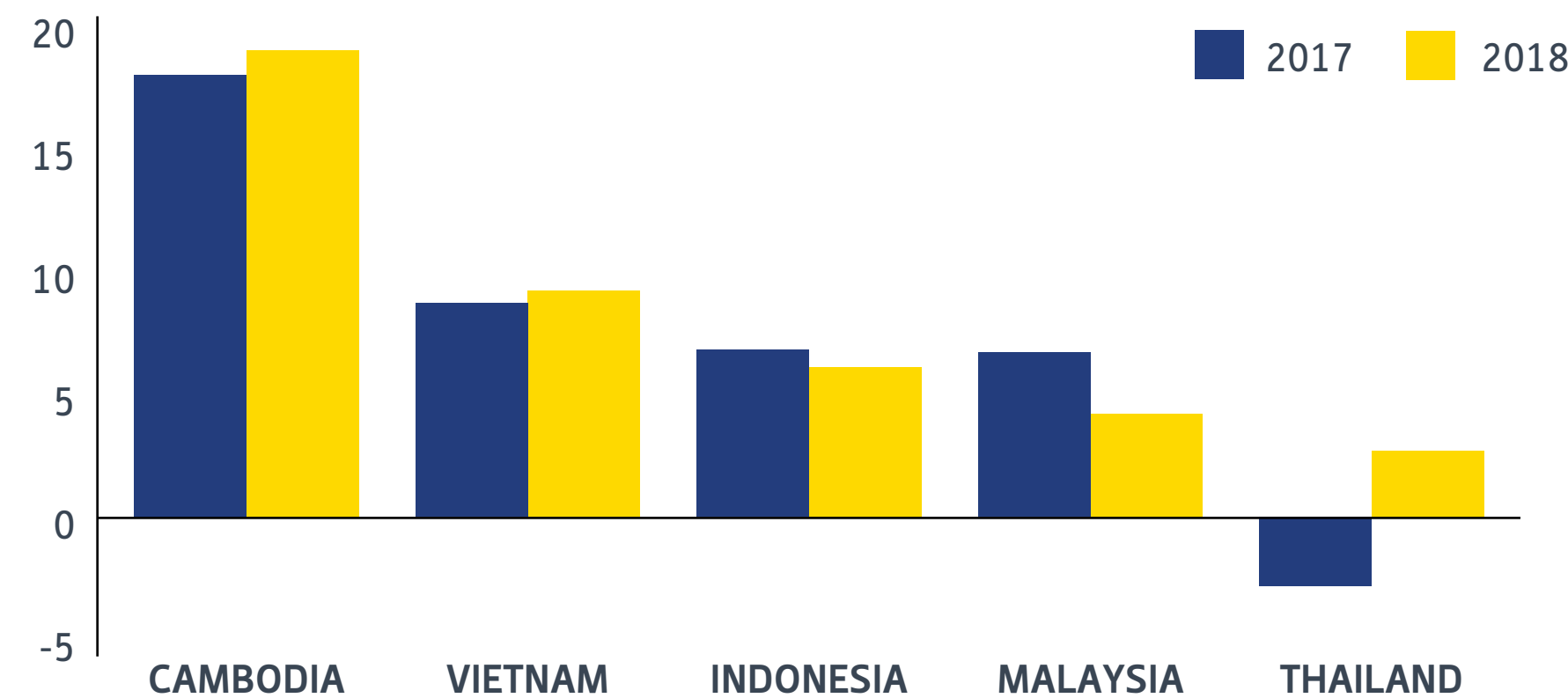


## Demographic resilience

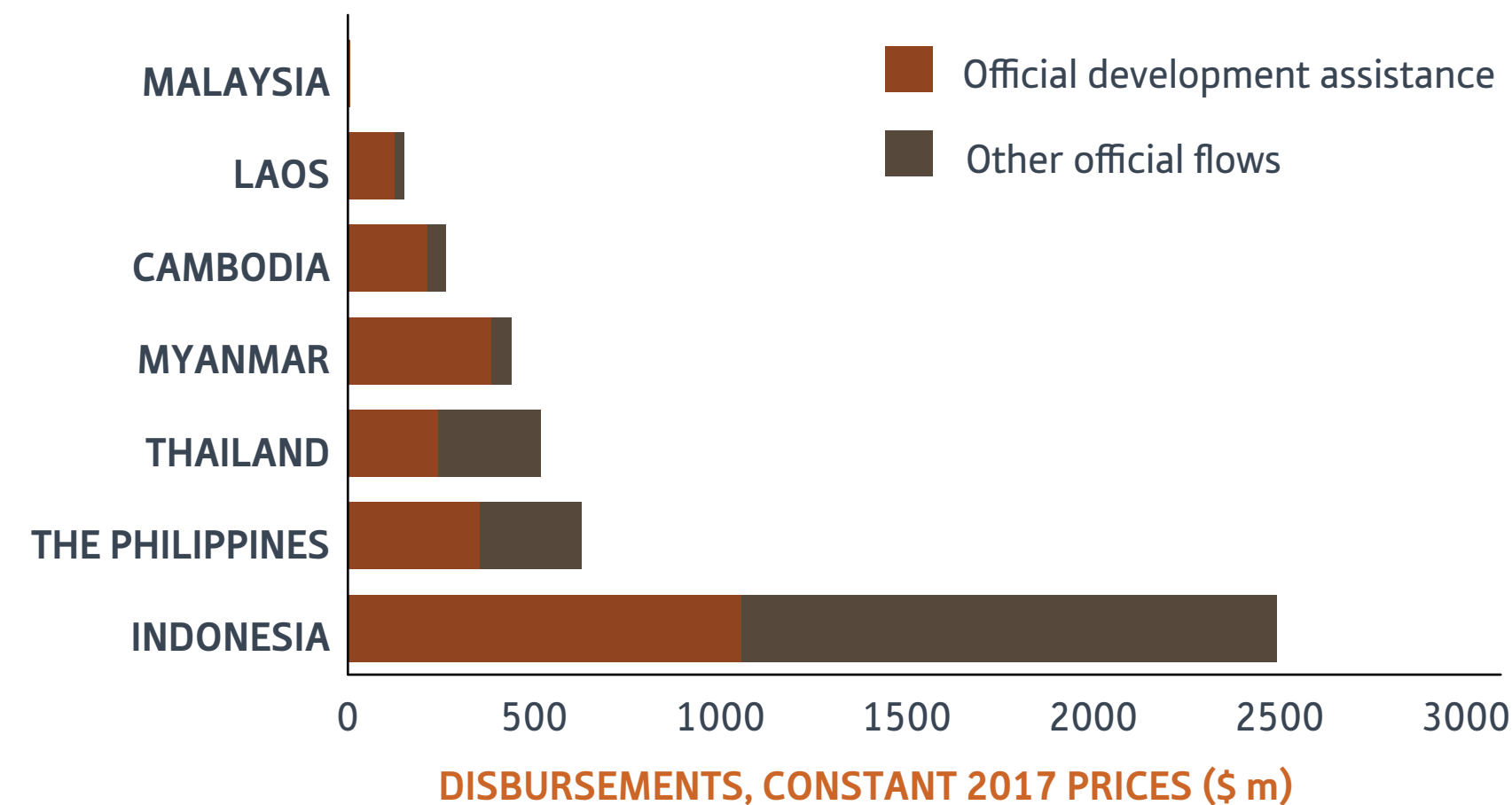
ASEAN members benefitted from a relatively young population the year that Covid-19 first emerged, averaging only 7% of their respective populations aged 65 and older. Given that this age group carries the highest risk, this protected the ASEAN region from some of the virus' worst health impacts. The demographic advantage also helped to offset the region's relatively high population density – a risk factor resulting from rapid urbanisation and a growing young population. Meanwhile, low unemployment rates further cushioned the group against some of the socio-economic impacts: nine economies outperformed the global mean, with three below 1%, in 2019.

# The ASEAN construction and engineering markets were on a positive trajectory prior to the pandemic

Construction market growth of selected ASEAN countries, 2017-18 (%)



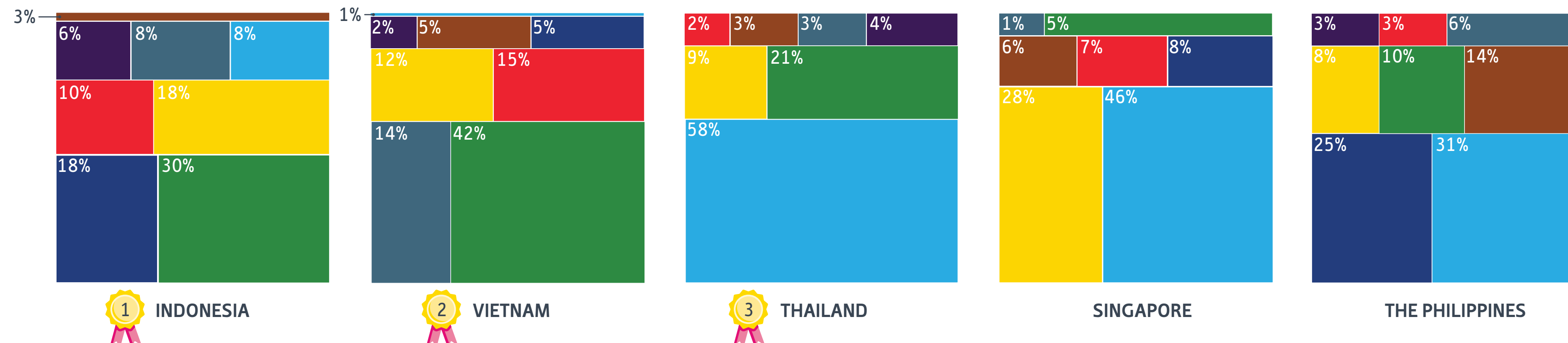
Total official flows for infrastructure, 2018



Projected activity in ASEAN's five-largest infrastructure markets signalled diverse opportunities, 2017-22F\*

Proportion of forecast national infrastructure spending by segment

Legend: Airport, Bridge & tunnel, Dam, Railway, Drainage, Road, Seaport, Power plant

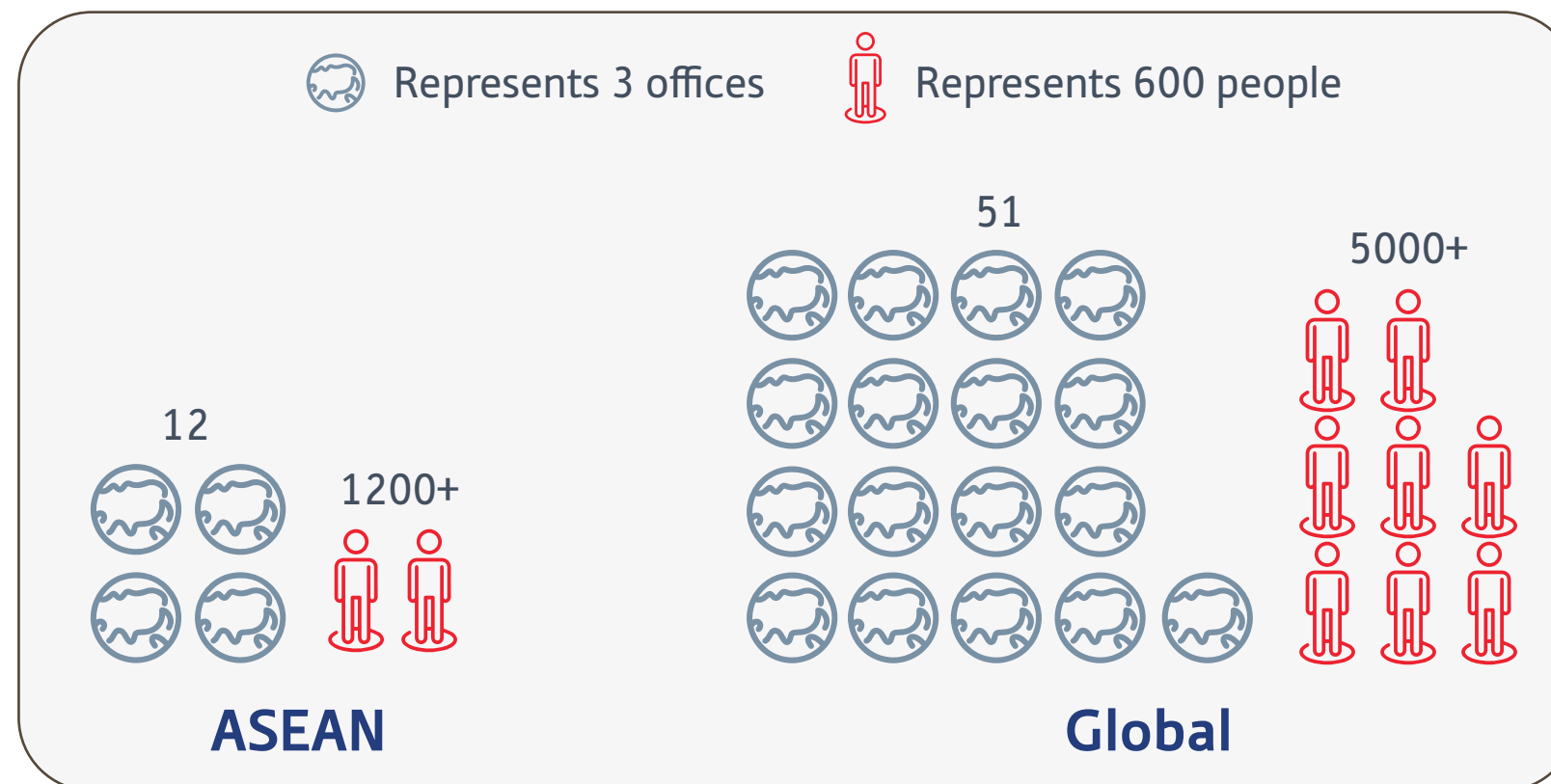


## Infrastructure support

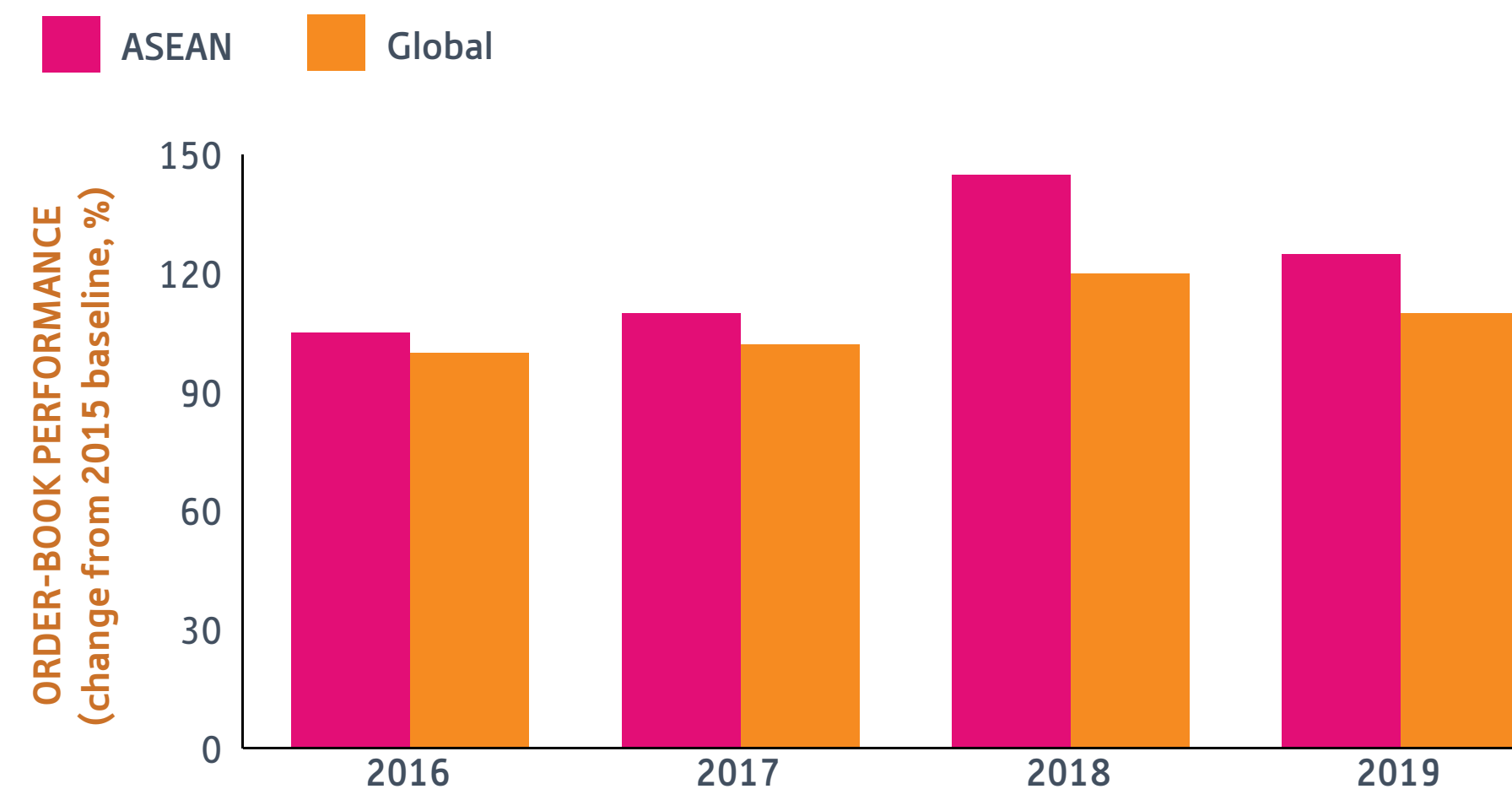
ASEAN's pre-pandemic construction market was expected to grow by an average of 6.1% over 2018-22, with mega-projects expected to total \$2.9trn. While this is lower than the 6.5% growth expected in emerging markets in the Middle East and Africa, the risk of projects in ASEAN being stalled or cancelled is considerably lower, according to GlobalData's Construction Risk Index. Much of this growth is the result of robust public spending on infrastructure and consistent domestic demand. These factors also propped up ASEAN's engineering market: in 2005-11 the average revenue of some 120 companies in Asia grew by 20% annually, with a consistent profit margin of 12.5%.

# CASE STUDY: Meinhardt's presence in ASEAN was a key contributor to global performance

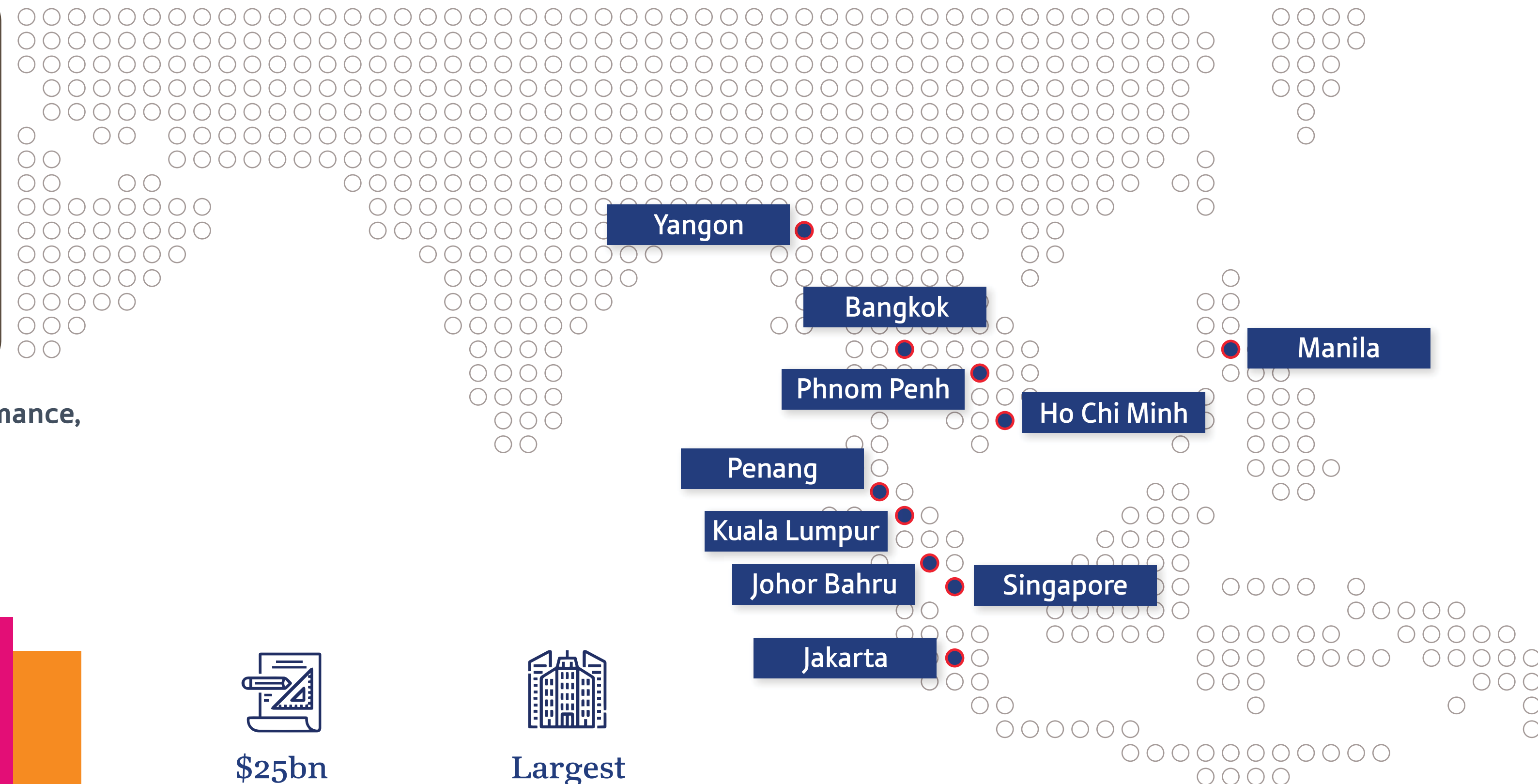
## Meinhardt presence



An uptick in ASEAN orders helped drive Meinhardt's performance, 2015-19



## ASEAN offices



  
**\$25bn**  
 total value of  
 projects annually

  
**Largest**  
 independent consulting firm  
 in Asia, according to Engineering  
 News-Record, 2020

## Resilience

ASEAN economies were among the fastest growing prior to the pandemic, with low external debt levels.

A young population, and increased health expenditure and capacity, offered some virus protection.

Robust domestic demand and public infrastructure spending were slated to drive low-risk construction activity.

## Response

What steps were taken to respond to the health threat, and how did the impact compare globally?

Which public sector actions offered support for construction activity across the region during 2020?

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## Recovery

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## Reinvention

How is ongoing digitalisation expected to impact construction activity over the coming years?

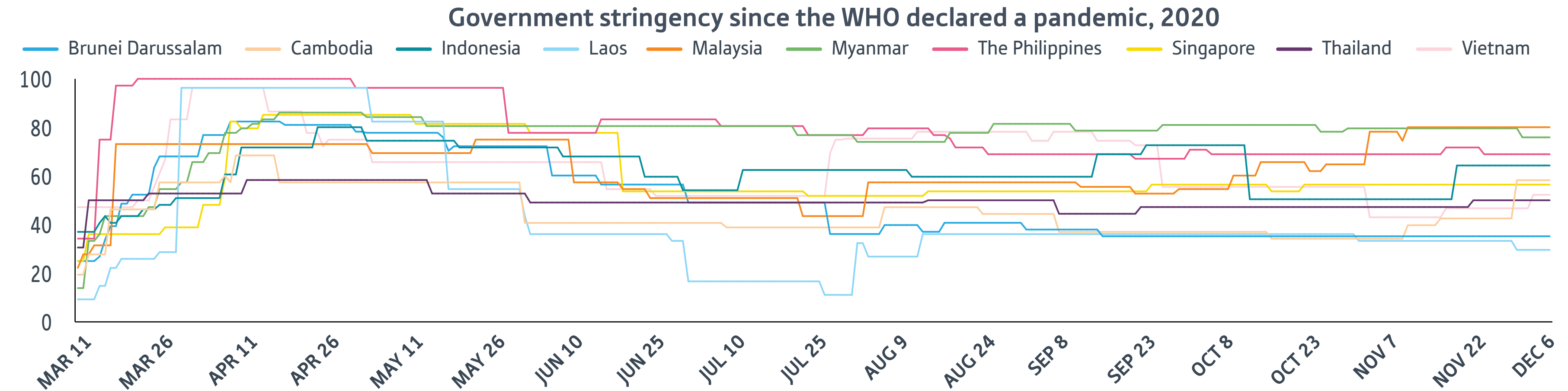
In what way did the global crisis reshape demand for ESG-aligned development projects in the region?

Which measures could further incentivise infrastructure investment and boost ASEAN's recovery?

# Authorities across ASEAN took steps to mitigate transmission of Covid-19

	Date of first confirmed case	Date of third death
Brunei Darussalam	March 9	June 17
Cambodia	January 27	N/A*
Indonesia	March 2	March 14
Laos	March 24	N/A*
Malaysia	January 25	March 22
Myanmar	April 9	March 23
The Philippines	January 30	March 14
Singapore	January 23	March 29
Thailand	January 13	March 24
Vietnam	January 23	July 31

\*Had not yet reported three Covid-19-related fatalities as of January 27, 2021



Oxford Covid-19 Response Tracker collects publicly available information on 17 indicators of government responses. Eight of the policy indicators record information on containment and closure policies. Four of the indicators record economic policies, and five indicators record health system policies.

## Key containment measures taken by ASEAN countries, 2020

Cambodia	<b>March 16</b> - Closed public places and schools, and imposed international travel ban
The Philippines	<b>March 16</b> - State of calamity declared and enhanced community quarantine introduced across Luzon
Malaysia	<b>March 18</b> - Movement Control Order (MCO) begins a national lockdown
Vietnam	<b>March 22</b> - Borders officially closed to all foreigners
Indonesia	<b>March 23</b> - Declared national health emergency and international travel ban
Brunei Darussalam	<b>March 24</b> - Implemented restrictions on land, sea and air travel
Thailand	<b>March 26</b> - State of emergency declared, with partial lockdown and border closures
Laos	<b>March 29</b> - Introduction of nationwide lockdown and closure of all borders
Myanmar	<b>March 30</b> - A government committee implements regional lockdowns
Singapore	<b>April 7</b> - Circuit breaker national lockdown begins

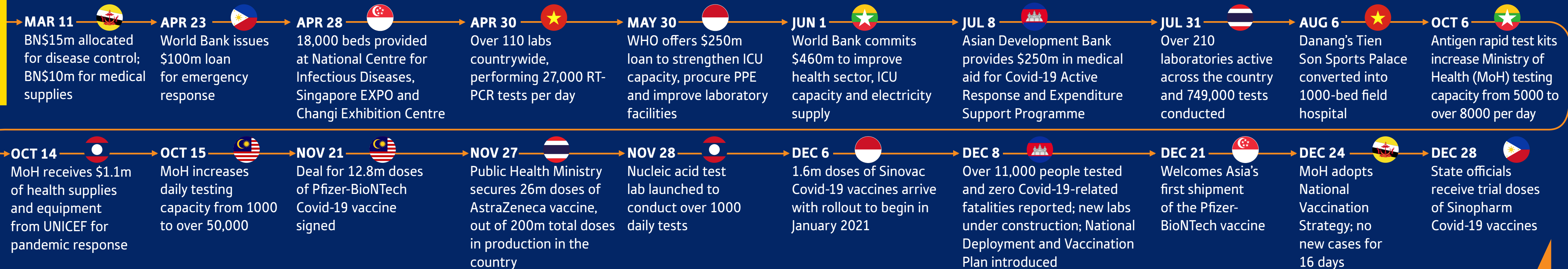


Vietnam	<b>April 23</b> - Lockdown is eased and activities resume except in high risk areas
Cambodia	<b>April 30</b> - Passed State of Emergency Law, restricting movement and work activities
Thailand	<b>May 3</b> - Some businesses reopen under specific guidelines
Brunei Darussalam	<b>May 16</b> - Lockdown eased and phased reopening begins
Laos	<b>June 4</b> - Gradual easing of travel restrictions
Indonesia	<b>September 7</b> - Large-scale social restrictions reimposed in Jakarta
Malaysia	<b>November 23</b> - Conditional MCO resumes in majority of states, after partially reopening some provinces on May 1
Singapore	<b>November 28</b> - Business travel pass introduced
The Philippines	<b>December 1</b> - Every province still under either general community quarantine (GCQ) or modified GCQ
Myanmar	<b>December 14</b> - National lockdown continues and travel ban extended until January 2021

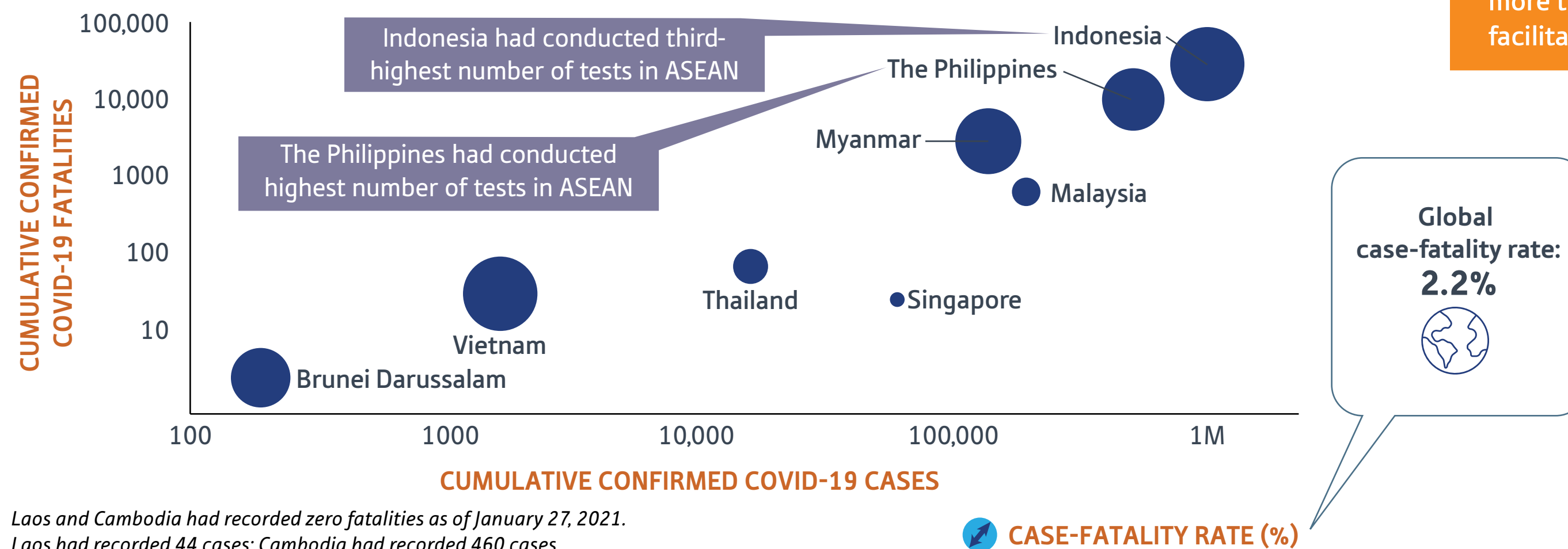


# ASEAN's testing capacity improved as members joined the race for a Covid-19 vaccine

## Health milestones across ASEAN, 2020






## ASEAN's case-fatality rates are generally lower than the global average, January 27, 2021



ASEAN vaccine rollouts commenced at the start of the new year, with over 60,000 doses in Singapore and more than 160,000 doses in Indonesia by the end of January. This should help restore investor confidence and facilitate economic activity.

## Total Covid-19 tests, January 27, 2021

	<b>Brunei Darussalam</b>	90,000		<b>Myanmar</b>	2.3m
	<b>Laos</b>	102,000		<b>Malaysia</b>	4.5m
	<b>Cambodia</b>	150,000		<b>Indonesia</b>	5.9m
	<b>Thailand</b>	1.3m		<b>Singapore</b>	6.3m
	<b>Vietnam</b>	1.5m		<b>The Philippines</b>	7.7m

# A range of fiscal and monetary responses improved ASEAN's outlook for infrastructure projects

## BRUNEI DARUSSALAM



30 March \$319m

Brunei Darussalam had recorded 176 cases and three fatalities as of January 27, 2021

## CAMBODIA



13 April \$100m  
14 April \$2bn

From March financial institutions received central bank permission to restructure loans for struggling borrowers in priority sectors, including construction and logistics. Extended until June 2021

## INDONESIA



25 February \$742m  
13 March \$8.1bn  
16 March \$1.5bn  
18 March \$3.9bn  
31 March \$24.6bn  
19 May \$43bn

Stimulus packages included support for SMEs, regional administration, targeted industries such as tourism, fisheries and ICT, and a state-owned construction company

## LAOS



2 April \$5m

Laos had recorded 44 cases and zero fatalities as of January 27, 2021

## MALAYSIA



27 February \$4.8bn  
27 March \$55.2bn  
6 April \$2.4bn  
5 June \$8.7bn

February stimulus included spending for rural infrastructure

March stimulus included funding for the mass rapid transit line. ICT networks, as did June's Short-Term Economic Recovery Plan

Green infrastructure projects were supported by June 1-GW tender for solar projects

## MYANMAR



27 April \$101m

The Myanmar Ministry of Planning, Finance and Industry (MoPFI) entered an agreement with Infrastructure Asia for projects in the Myanmar Project Bank, including developments with private sector participation.

April's Covid-19 Economic Relief Plan expedited developments for renewable energy and strategic infrastructure, in a move to encourage investment

## THE PHILIPPINES



16 March \$527m  
31 March \$3.8bn

In May the Department of Budget and Management proposed a P1.1trn public infrastructure programme as part of the FY2021 budget to support the administration's flagship Build, Build, Build infrastructure development programme

## SINGAPORE



18 February \$4.6bn  
26 March \$33.7bn  
6 April \$3.4bn  
26 May \$23.3bn

Construction sector received support under fiscal relief packages

Construction also helped by the waiving of foreign worker levies, paid by firms for employees with a work permit, from June 2020 to December 2021

## THAILAND



4 March \$3.2bn  
24 March \$3.6bn  
7 April \$82bn

April stimulus included \$12bn for community infrastructure development

## VIETNAM

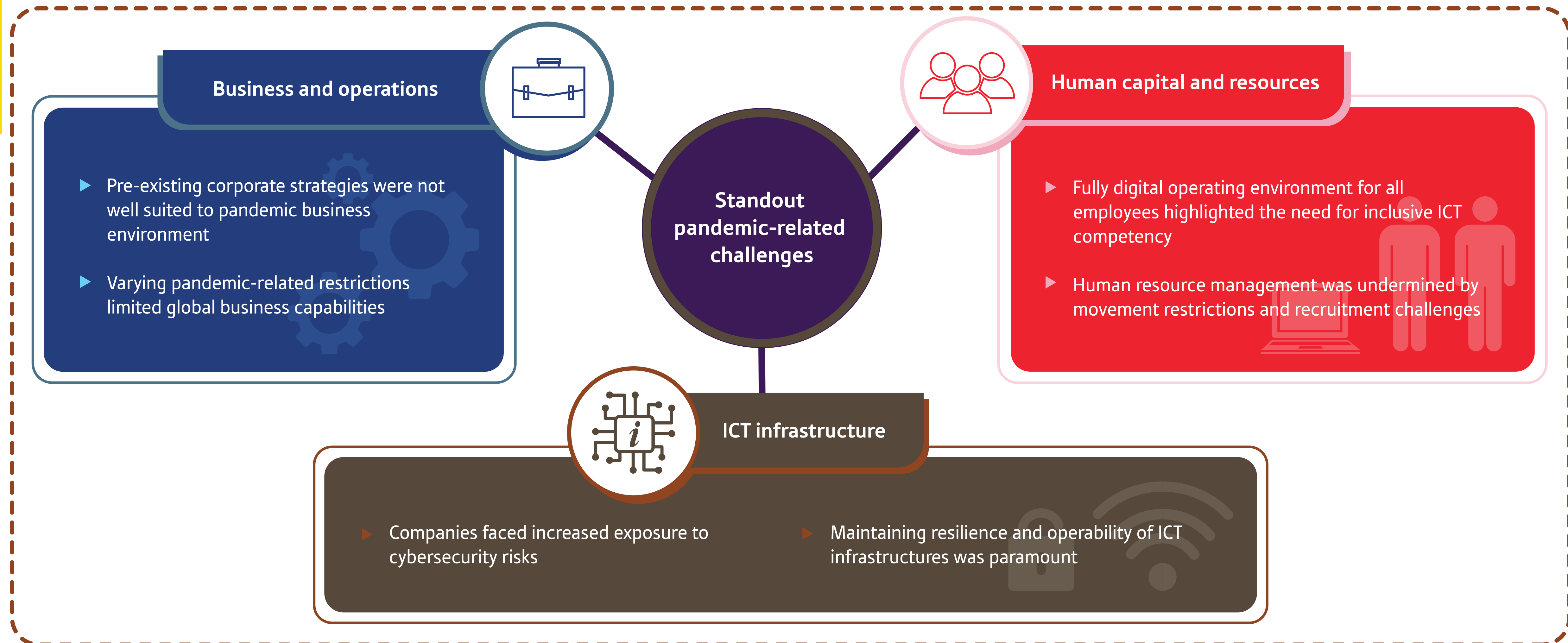


6 March \$1.2bn  
10 April \$2.6bn

March stimulus included support for road infrastructure projects

In June the National Assembly allocated public funds to the North-South Expressway project

## CASE STUDY: Meinhardt's Covid-19 challenges spanned operations, ICT infrastructure and human capital



## **CASE STUDY:** Meinhardt employees were able to continue working in a safe environment

### INITIAL RESPONSE

Mandatory work from home globally

Centralised IT helpdesk

New operational protocols based on virtual interface strategies



### WORKPLACE RETURN

Staggered working hours

Automated temperature recording

Daily disinfections, inspections and safety training



### DYNAMIC E-ENVIRONMENT

Virtual social gathering

Health and wellness sessions

Helpline to promote psychological and emotional well being



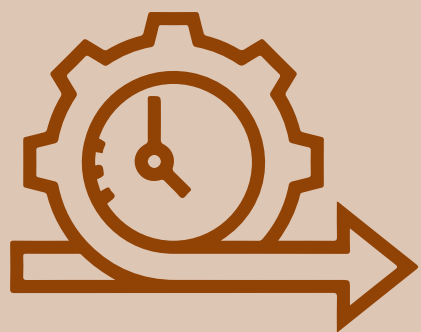
## CASE STUDY: Meinhardt planned a 360° review of its business strategy

### Pillars of Meinhardt Group's operational response

Agility during tough times



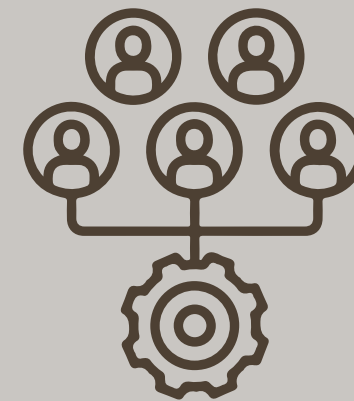
Robust business continuity plan



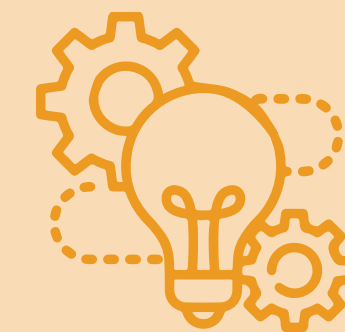
Solid and reliable communications strategy



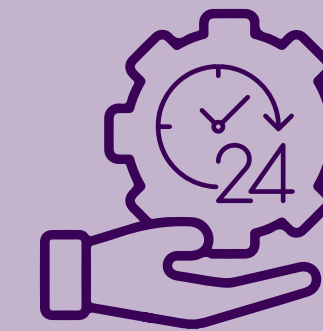
Well-structured network with partners and clients



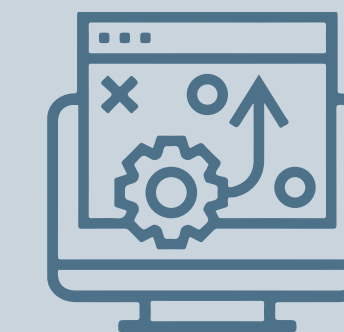
Advanced technologies, cloud-based systems and collaboration tools



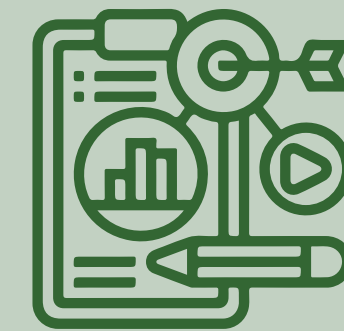
24/7 ICT support



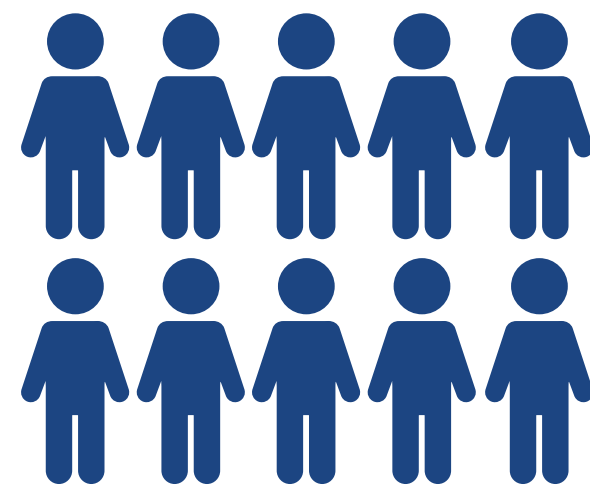
Redefined strategies to meet evolving customer needs



Revamped marketing and business development strategies



## CASE STUDY: Agility enabled Meinhardt to continue expanding safely and share industry expertise



**<0.2%**

staff infection rate  
across ASEAN offices



**280**

multi-disciplinary  
video conferences



**250**

memos, e-newsletters, tips  
and videos sent to staff and customers

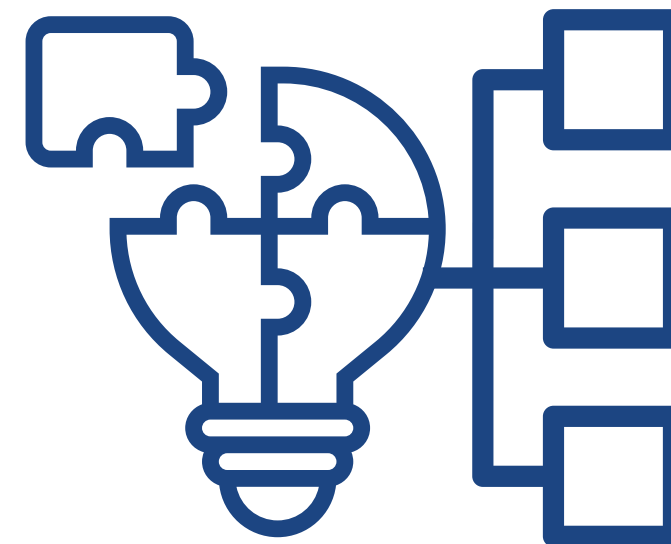


**24-hr**

turnaround in formulating  
response to new  
Covid-19 regulations

### Sharing industry expertise

In August 2020 Omar Shahzad, Group CEO, shared expertise on post-pandemic considerations for **engineering** and **planning**, and **smart cities** and **infrastructure**, as **panellist** for inaugural Indo-ASEAN Oceanic Business Summit and Expo



**300+**

new projects won between  
March and September 2020

### Ongoing operational expansion

During Q1 2020 Meinhardt Group **expanded** operations in Qatar and strengthened its Australian business through an **acquisition**. Launching new **employment opportunities** this supported Meinhardt Group's commitment to **ongoing growth**

## Resilience

ASEAN economies were among the fastest growing prior to the pandemic, with low external debt levels.

A young population, and increased health expenditure and capacity, offered some virus protection.

Robust domestic demand and public infrastructure spending were slated to drive low-risk construction activity.

## Response

Restrictions and health technologies helped much of the bloc record case-fatality rates below the global mean.

ASEAN's infrastructure outlook was improved by a range of fiscal and monetary provisions launched in 2020.

A revised business model enabled construction companies to safely maintain operations.

## Recovery

How promising are the prospects for short- and medium-term economic recovery across the region?

Where is the standout potential for infrastructure programmes to facilitate long-term growth in ASEAN?

What scope is there for alternative financing to support the bloc's infrastructure development agenda?

## Reinvention

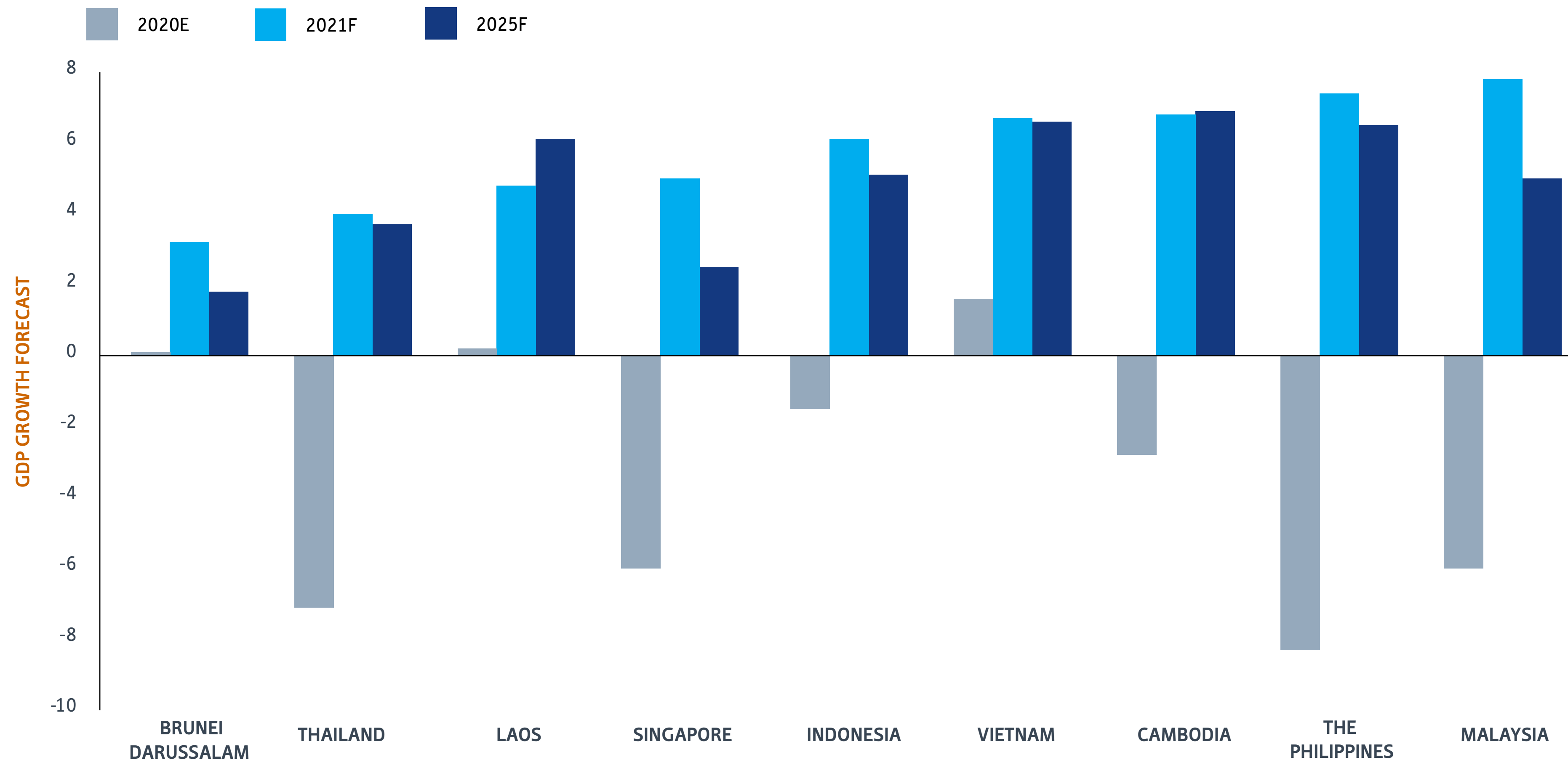
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# ASEAN members are expected to enjoy a strong economic recovery from 2021

ASEAN was forecast for a GDP slowdown in 2020, before recovering in 2021\*



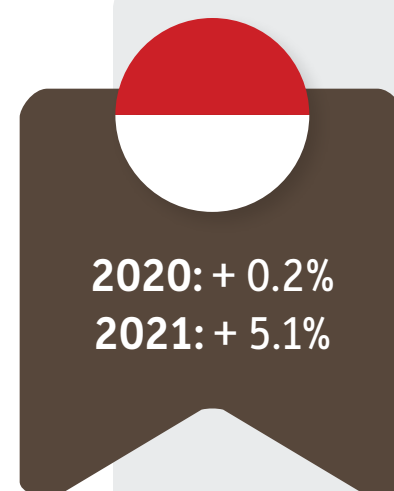
\*According to the IMF's October World Economic Outlook, before some members reintroduced restrictions to combat rising cases in the new year

## Growth forecast

ASEAN was expected to register an economic slowdown over 2020, with mean GDP growth of 1% across all members, according to the IMF's October World Economic Outlook. While Vietnam, Laos and Brunei Darussalam – as well as Myanmar, under the purview of the previous government – were slated to experience expansion, the remaining six economies were predicted to report negative GDP figures. Looking towards the end of 2021, Malaysia was expected to post standout growth of 7.8%, although this may be tempered by the reintroduction of movement restrictions in January 2021. Further down the line, Cambodia is expected to lead growth in 2025, with a 6.9% expansion, and Vietnam is forecast to follow closely, with 6.6%.

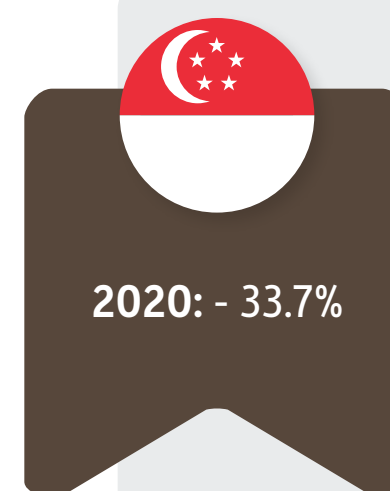
# The region's construction industry is expected to rebound and support recovery in the immediate term

## Construction growth will rebound to varying degrees with public sector support, 2020-21\*



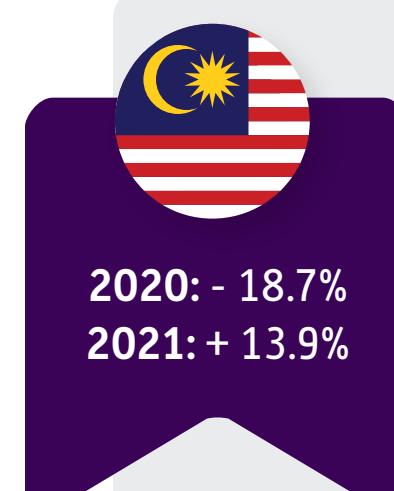
**Rp414trn** earmarked for construction in 2021 budget; **early bidding** under way in November 2020 for **1900** of **4900** total infrastructure packages planned for 2021

Government plans to issue **Rp27.6trn** of *sukuk* (Islamic bonds) in 2021 to finance **870 infrastructure projects** and spur socio-economic growth, primarily for transport connectivity and logistics



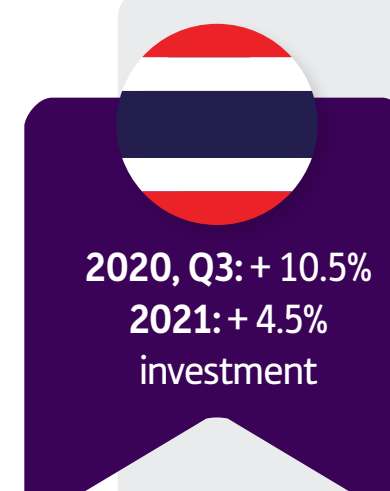
Contraction **eased** over the year as **activity resumed**, from - 61% in Q2 to - 28.5% in Q4

Targets **government issuance** of **green bonds** for public infrastructure as part of Singapore Green Plan 2030 to build a more green, liveable and sustainable environment; **\$19bn** of public sector green projects already identified, according to 2021 budget



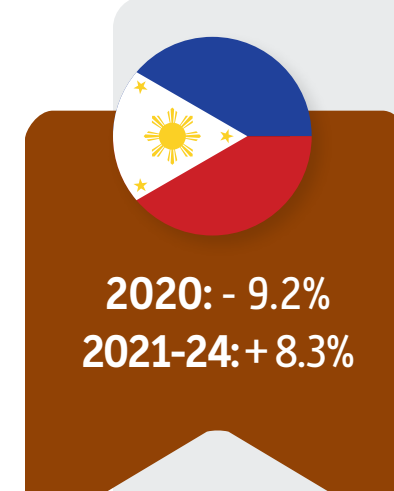
**RM15bn** allocation for transport infrastructure in 2021 budget and a further **RM3.8bn** for seven named Works Ministry projects. Could present opportunity for **private investors** as government seeks to **fast-track** mega-projects

Movement control order reintroduced in January 2021 to combat rising case count, so recovery unlikely to start until **Q3**



Key drivers to include **public spending** on **mega-projects**, particularly for **Eastern Economic Corridor** (EEC)

government targets resumption of **six key infrastructure projects**, including aviation, port and rail initiatives, and **EEC's Digital Park Thailand**



**P1.2trn** earmarked for infrastructure in 2021 to generate **1.7m jobs**; procurement **ongoing** in March 2021 despite reintroduction of movement restrictions

Renewed commitment to 104 projects, **P4.1trn Build, Build, Build** infrastructure programme; plans to revisit progress and financing terms for big-ticket projects at end-March 2021



Posted bloc's **strongest economic performance** over 2020: **construction**, particularly **public infrastructure** projects with wide-ranging **multiplier effects**, expanded **6.8%**

Medium-term **public investment plan** 2021-25 scheduled for approval in July 2021. Focus on **key infrastructure** spanning transport, including Ho Chi Minh City's **\$16bn** new **international airport**; water; education; health; and agriculture

\* According to forecasts from January-February 2021; some members reintroduced restrictions in 2021 to combat rising cases

\*\*annual average growth, according to November 2020 report from GlobalData

## Strong return

Although the global construction industry contracted by 4.3% in 2020 amid Covid-19-related disruptions, there is optimism that the industry is on the path to recovery during 2021, Omar Shahzad, Group CEO of Meinhardt Group, told OBG. Indeed, the industry is expected to expand by 3% globally over the year, with potential expansion of 7.5% in ASEAN, Shahzad explained.

Moreover, there is potential for industrial construction in ASEAN to benefit from any diversification away from China. Construction therefore looks set to be a key growth driver as governments turn to infrastructure investment to stimulate the economy and generate jobs.

# Infrastructure projects lay the groundwork for economic recovery and sustainable future growth

Infrastructure development to lead recovery in three phases

## RESPOND

01

Minimise immediate disruptions arising from the impact of the pandemic by filling **urgent infrastructure gaps**

02

## RECOVER

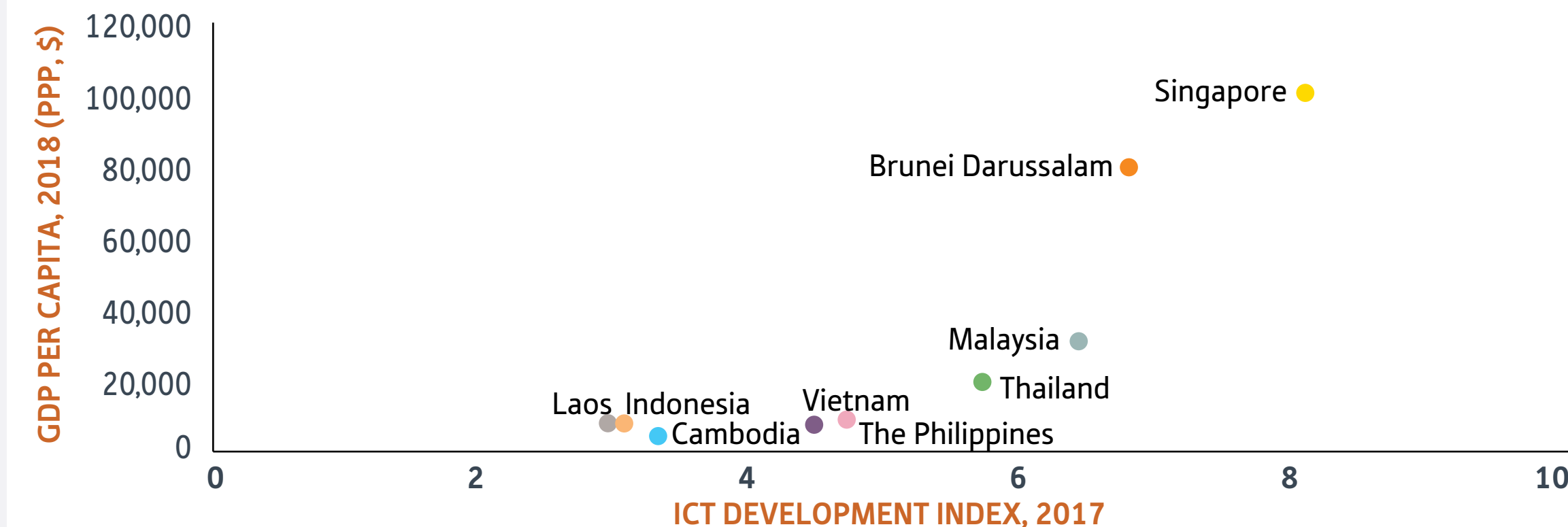
Bring infrastructure spending forwards, with **priority** given to maintaining and upgrading **existing infrastructure**, as well as acceleration of **pre-approved projects**

## THRIVE

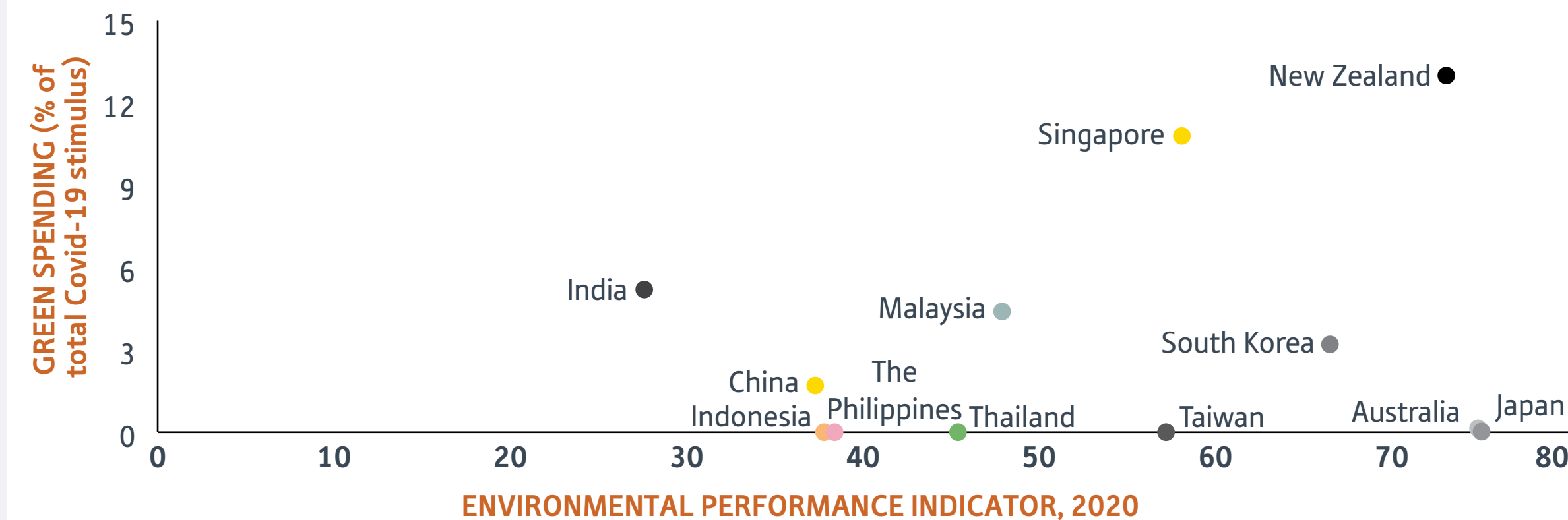
03

Prepare for future shocks by embracing a **sustainable, low-carbon recovery plan**

Economic growth and ICT development: Singapore and Brunei Darussalam among top performers



Green spending as proportion of stimulus: Singapore and Malaysia among top performers



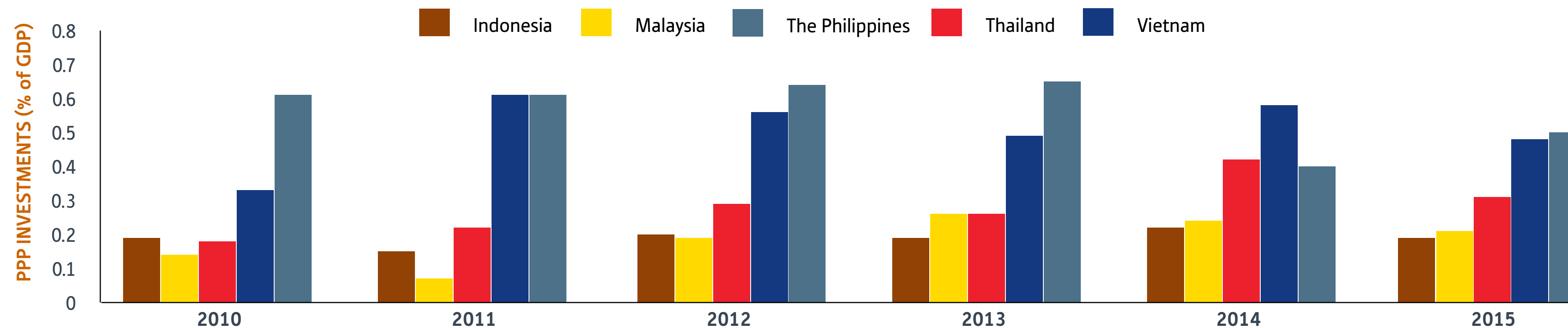
The 2020 Environmental Performance Indicator scored countries across 32 performance indicators of environmental health and ecosystem vitality (out of 100)

## Recovery driver










Infrastructure projects will be key in driving ASEAN governments towards a robust economic recovery, as well as a more resilient and sustainable future, due to the segment's ability to kick-start economic activity and generate jobs. In addition to utilities infrastructure, strengthening transport infrastructure will help boost economic prosperity given the importance of trade to the region. Investment in digital infrastructure will also be critical. According to a mid-2020 report on a roundtable organised by the International Telecommunication Union, countries with sound digital infrastructure could mitigate up to half of the pandemic's economic impact in the medium term.

# Alternative sources of funding for major infrastructure projects could boost ASEAN's recovery

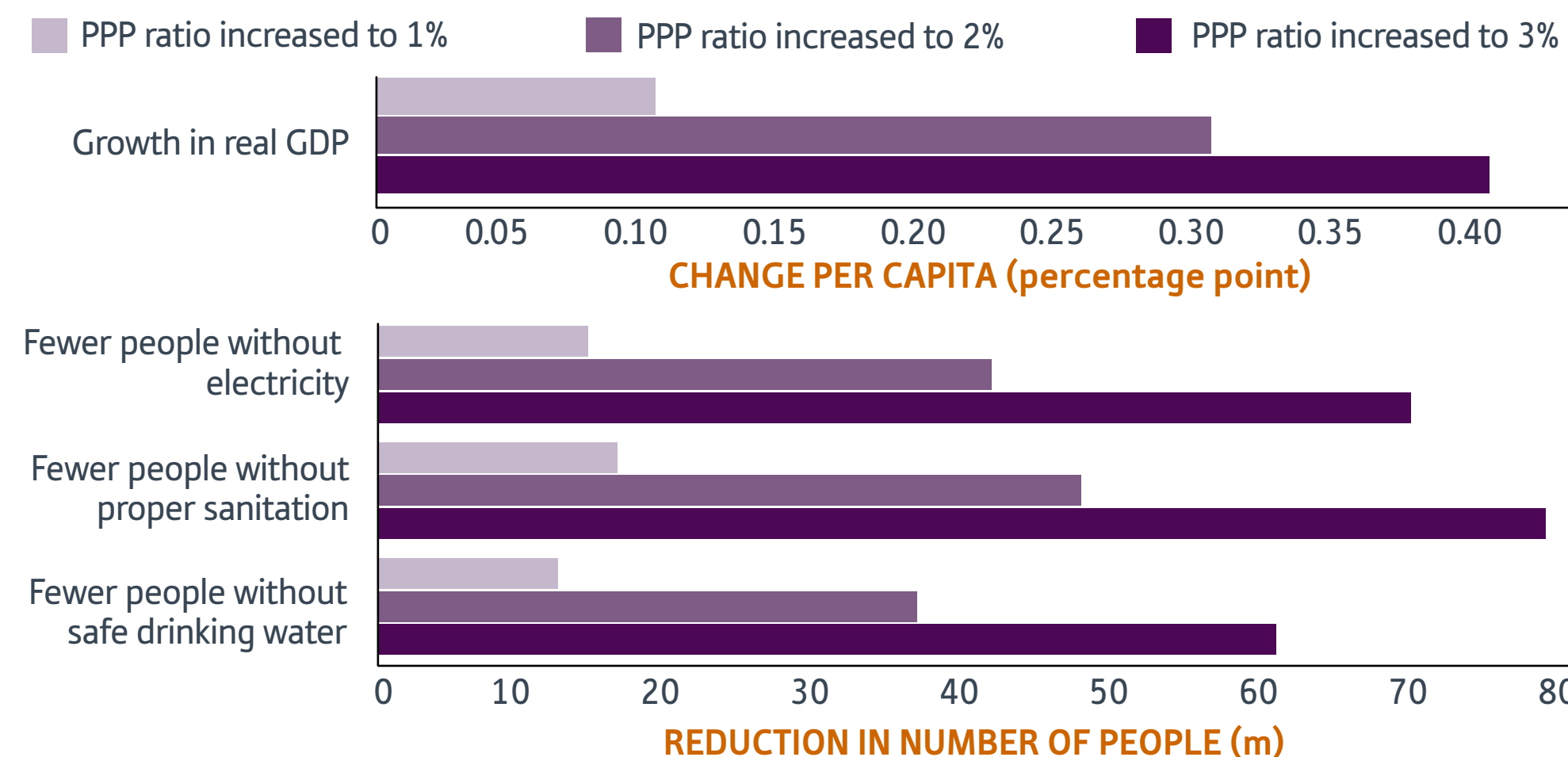
Public-private partnership (PPP) infrastructure investments in ASEAN commonly remained below 0.5% of GDP, 2010-15



Global Competitiveness Index, 2019

	Ranking (out of 141)	Infrastructure (score out of 100)
 Singapore	1	95
 Malaysia	27	78
 Thailand	40	68
 Indonesia	50	68
 Brunei Darussalam	56	70
 The Philippines	64	58
 Vietnam	67	66
 Cambodia	106	55
 Laos	113	59

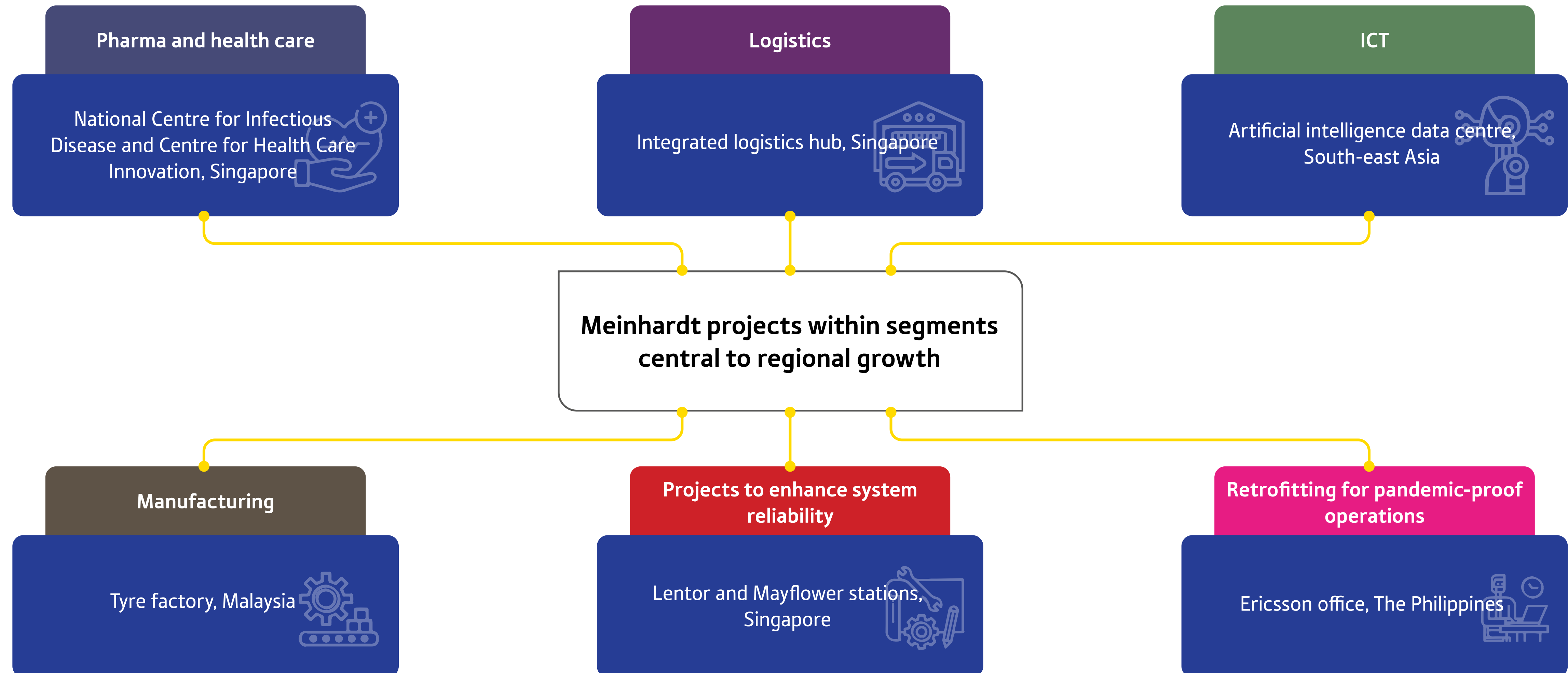
Increasing PPP infrastructure investments in developing Asia could have a wide-ranging multiplier effect



## Private support

The Covid-19 pandemic has led governments to re-evaluate infrastructure priorities, thereby mobilising alternative financing mechanisms and PPPs. This aligns with the Initial Rolling Priority Pipeline of Potential ASEAN Infrastructure Projects, the first key initiative in the ASEAN Connectivity Strategy – part of the Master Plan on ASEAN Connectivity 2025. The initiative aims to attract more sustainable infrastructure investment, including PPPs. Vietnam, for example, passed a new PPP law in June 2020 and has also allocated state funding to its North-South Expressway's eastern cluster, which is expected to attract more private investment by reinforcing the government's commitment to the project.

## CASE STUDY: Meinhardt focused on projects within segments key to pandemic recovery



## **CASE STUDY:** Meinhardt also delivered retail fuel and aviation projects

### Case study: major Meinhardt projects completed during Covid-19 period

#### Retail fuel programme for Shell, Malaysia and Indonesia

Construction of new buildings and retrofitting of existing stations

Project management, engineering, procurement and other integrated services



#### New Manila International Airport master plan, The Philippines

Master planning and consultancy services for greenfield development

500,000-sq-metre terminal with four runways to accommodate 90m annual passengers



## Resilience

ASEAN economies were among the fastest growing prior to the pandemic, with low external debt levels.

A young population, and increased health expenditure and capacity, offered some virus protection.

Robust domestic demand and public infrastructure spending were slated to drive low-risk construction activity.

## Response

Restrictions and health technologies helped much of the bloc record case-fatality rates below the global mean.

ASEAN's infrastructure outlook was improved by a range of fiscal and monetary provisions launched in 2020.

A revised business model enabled construction companies to safely maintain operations.

## Recovery

ASEAN members are expected to rebound, with leading forecasts of 7.8% in 2021 and 6.9% in 2025.

Transport, utilities and digital infrastructure offer standout potential to boost trade and inclusive growth.

The bloc aims to mobilise more sustainable financing for infrastructure – particularly PPPs.

## Reinvention

How is ongoing digitalisation expected to impact construction activity over the coming years?

In what way did the global crisis reshape demand for ESG-aligned development projects in the region?

Which measures could further incentivise infrastructure investment and boost ASEAN's recovery?

# The pandemic increased the demand for clean, green and smart urban environments

## The pandemic reshaped the future of smart cities

Smart cities use **technology** for enhanced integration and sustainable urban management

Agile, responsive and user-focused **infrastructure** offers **solutions to urban challenges** across transport, energy and health care

Global smart city market is expected to value **\$2.5trn** by **2025**

### Before the pandemic



Smart cities leveraged **digital innovation** for urban service delivery and disaster resilience

### During the pandemic



Covid-19 highlighted **urban vulnerabilities** including poor quality housing, insufficient public space and poor public services



This increased focus on citizens' **welfare** and **well-being**



Many smarter cities **fared better** in terms of preparedness and resilience planning during the pandemic



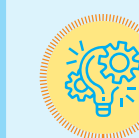
This was partly because digitalisation processes, previously used to improve urban living, could be quickly **re-purposed** for the crisis response



#### Examples included:

- Technological integration, which aided the rapid launch of contact-tracing systems as in Singapore
- Thermal screening, which was common at South-east Asia's airports and could identify possible Covid-19 infections

### After the pandemic



Future smart cities look set to prioritise **public health** and **sustainable construction**, particularly amid growing emphasis on environmental, social and governance (ESG) policy

#### ESG-compliant developments include:

- Innovations that promote inclusion and accessibility
- Pandemic-related innovations, such as temporary bike lanes and parking restrictions, that prove popular and sustainable

### Singapore tops the global Smart City Index, 2020

	Ranking (out of 109)	Change in rank, 2019-10		
	<b>1</b>	<b>0</b>	<b>Singapore</b>	>>> Very high scores (80+ out of 100) in smart criteria including: sanitation, lifelong learning opportunities and internet speed/reliability
	<b>54</b>	<b>16</b>	<b>Kuala Lumpur</b>	>>> High scores (70+ out of 100) in smart criteria including: creation and online listing of new jobs, medical services provision and ease of public transport via online scheduling/ticket sales
	<b>71</b>	<b>4</b>	<b>Bangkok</b>	>>> Plans to establish 100 smart cities in Thailand by 2038 with open and secure data platforms and sustainable management models. Eastern Economic Corridor aims for Asia's first carbon neutral smart city with its Sriracha Creative District project
	<b>84</b>	<b>-18</b>	<b>Hanoi</b>	>>> Smart city development under way in the city's Dong Anh district. Project is expected to cost \$4.2bn with new residences ready from 2022
	<b>94</b>	<b>-13</b>	<b>Jakarta</b>	>>> Proposed new capital in East Kalimantan targets 100% renewable energy within a smart grid, sustainable construction methods and energy-efficient designs, and network of green spaces. Will ease the burden on Jakarta and enable its regeneration
	<b>104</b>	<b>-10</b>	<b>Manila</b>	>>> Selected among 36 pioneer cities for digital innovation initiative, the G20 Global Smart Cities Alliance in collaboration with WEF, in November 2020

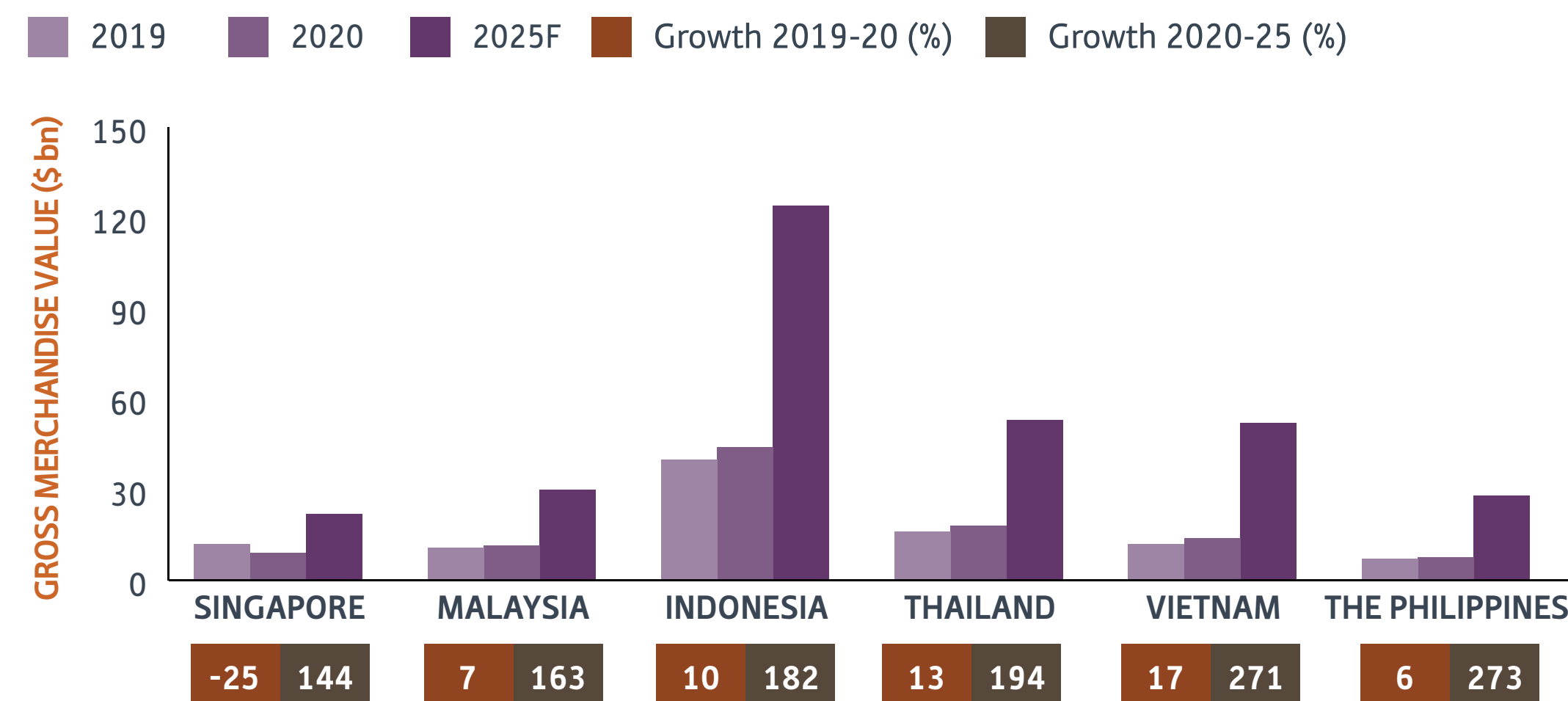


**G20 Global Smart Cities Alliance** aims to empower cities with policies regarding:

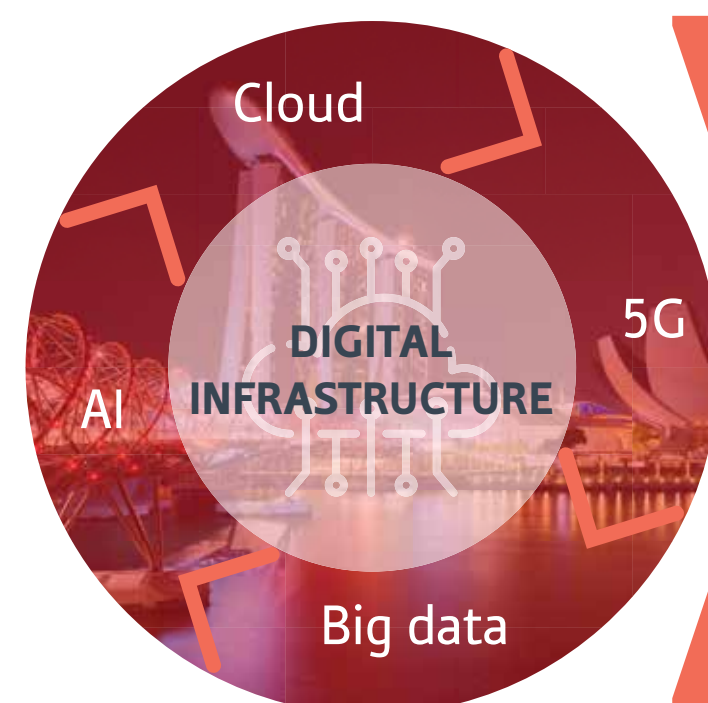
Security and resilience  
Privacy and transparency  
Equity, inclusivity and social impact  
Operational and financial sustainability

# ASEAN offers a range of growth opportunities in digital infrastructure, including health technologies

The region's internet economy is preparing for accelerated expansion



Increased focus on health care could spark demand for emerging health technologies



## DETECTION

AI-assisted CT scans will reduce diagnosis time from 14 minutes to an estimated two minutes

Remotely-operated robotic arms powered with 5G can relieve frontline staffing issues

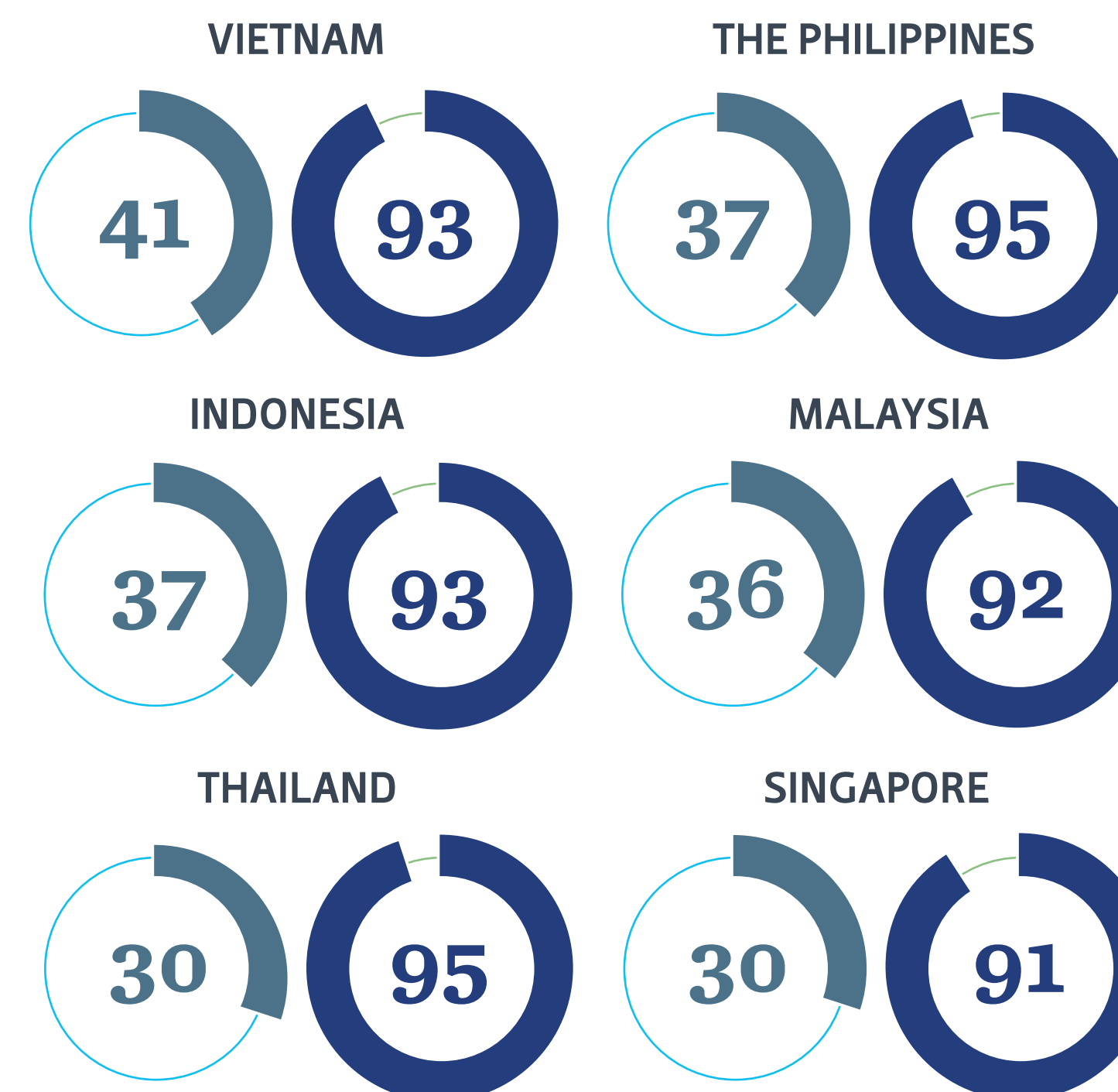
## TREATMENT

Machine-learning models reduce computer-aided drug screening from months to hours

Remote 5G consultation will allow multi-party collaboration and data transmission

Over 90% of South-east Asia's new digital services users look set to stay

Legend: New digital consumers\* (%) (light blue), New digital consumers who expect to stay\*\* (%) (dark blue)



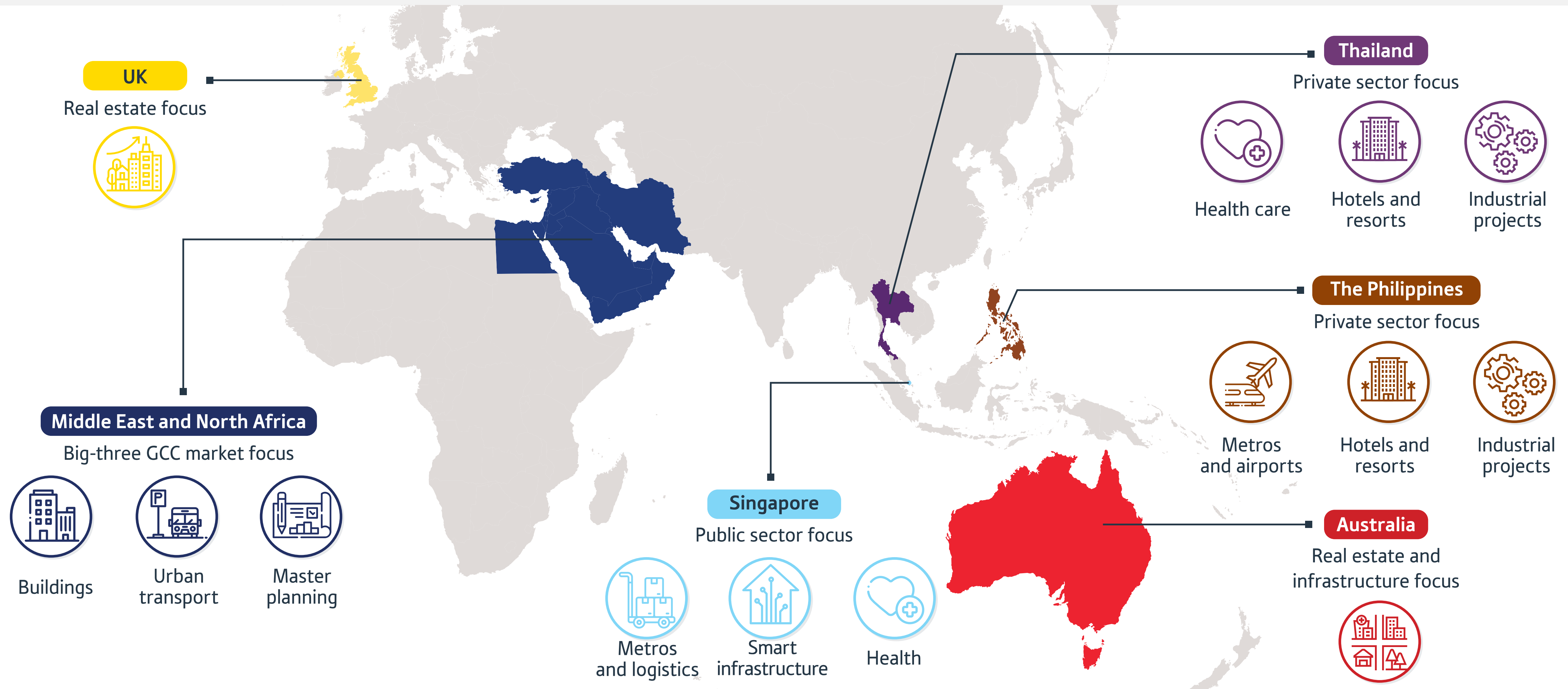
\* Proportion of total digital consumers who started using new services during the pandemic

\*\* Proportion of new digital consumers who expect to continue using at least one digital service after the pandemic

## Infrastructure opportunities

Growth in the use of online technologies during 2020 laid the foundation for ASEAN's post-pandemic development, with the overwhelming majority of new digital service users intending to continue using these technologies. With substantial expansion expected over 2020-25, construction demands will include the building, maintenance and repair of required infrastructure such as telecoms towers, data centres, and warehouses and logistics infrastructure. For similar reasons to the rising demand for smart cities, digital infrastructure requirements are likely to be compounded by an uptick in emerging health technologies that provide efficient and affordable services after the health crisis.

# CASE STUDY: Meinhardt's construction and engineering focus for the future varies by market



# Omar Shahzad, Group CEO Meinhardt Group



**How has the Covid-19 pandemic impacted demand for construction across South-east Asia, and do you expect to see any lasting changes to demand drivers in the region?**

**SHAHZAD:** The construction industry in South-east Asia was significantly impacted by Covid-19 during 2020, declining by 4.3% over the year. However, there is great optimism that the industry is on the path to recovery. ASEAN's construction industry is projected to post growth of 7.5% for 2021, far outpacing the anticipated global growth rate of 3%.

This V-shaped recovery will see the industry reach – and indeed surpass – pre-pandemic activity levels as soon as 2022. The disruption has also triggered a renewed commitment to infrastructure development as governments across the region have announced new infrastructure packages in a move to spur economic growth.

**To what extent will the construction sector fuel ASEAN's economic recovery, and which segments are most likely to drive growth?**

**SHAHZAD:** While construction was among the industries most negatively affected by Covid-19 throughout 2020, by the same logic, the industry will be one of the main drivers of economic recovery in the region going forwards. Governments across ASEAN are gradually shifting their policy focus from economic stabilisation to recovery and long-term growth, announcing more infrastructure and social-housing projects, as well as addressing the region's broader infrastructure deficit.

Business areas such as railways and roads are likely to see growth as domestic travel resumes, and we are also seeing rising interest in affordable housing and sustainable, green projects.

**What more could be done to incentivise private investment in infrastructure across ASEAN during the recovery phase?**

**SHAHZAD:** The private sector can play a key role in addressing the infrastructure investment gap in many countries – ASEAN members included. Governments can take several steps to attract and facilitate investment, particularly for greenfield projects. These include improving project preparation by conducting thorough technical and commercial feasibility studies with well-regarded professional firms; streamlining project procurement processes; and fostering more transparency by clearly explaining project pipelines and following timelines as closely as possible. Governments can also support firms throughout project execution by helping industry players obtain permits and approvals from agencies, thereby mitigating political and foreign exchange risk during the project lifecycle. With clearer processes and lower risk, private investment will flow more effortlessly into infrastructure development.

**Where do you see scope for technology to further enhance efficiency and improve quality in the construction and engineering industry?**

**SHAHZAD:** While construction is regarded as one of the least-digitalised industries, there is a considerable push from governments and the industry itself to spur transformation: exciting technology trends have emerged in multiple areas. First, parametric modelling will become more widely adopted, as will 3D building information modelling (BIM). BIM can provide contractors with a more comprehensive picture of pricing and execution, and can help project owners and operators better manage assets throughout the project lifecycle. Construction sites are similarly slated for transformation, and could function as sites for assembly as modular construction and prefabricated, pre-finished volumetric construction – which combine off-site construction with on-site installation – become more mainstream. The use of robotics, drones and real-time data analytics will also be used to better track progress, and identify and solve issues that arise during construction.

”  
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”

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The bloc aims to mobilise more sustainable financing for infrastructure – particularly PPPs.

## Reinvention

Digitalisation will initiate projects and spur transformation within the construction industry.

Covid-19 highlighted urban challenges and emphasised well-being, changing construction demands.

Streamlined bureaucratic processes could expedite construction projects and encourage private investment.

# 6 Key Takeaways

1

ASEAN faced Covid-19 with years of improved health care infrastructure under its belt: expenditure had risen, coverage had expanded and technology investments were substantial. With demographic advantages, and increased testing and treatment capacity, much of the bloc reported case-fatality rates below the global mean in 2020, before vaccination commenced in 2021.

2

The region was home to some of the world's fastest-growing economies prior to Covid-19, with five members averaging expansion above 6.5% during 2015-19 and some of the lowest unemployment rates in the world. Acceleration was expected to continue, with construction activity – led by robust infrastructure spending and domestic demand – forecast to be a key driver of economic activity.

3

With the potential to drive sustainable growth and in a bid to protect daily-wage earners, construction-focused fiscal and/or monetary measures were introduced by the eight hardest-hit bloc members. Some activity was able to continue, with business model adaptations; ASEAN's construction industry is now poised for a V-shaped recovery, with a forecast of 7.5% expansion for 2021.

4

As a positive indicator of broader economic growth, some of the bloc's members are also expected to rebound sharply – with standout forecasts of 7.8% in 2021 and 6.9% in 2025, according to the IMF's October World Economic Outlook. A targeted business strategy, focusing on high-potential recovery segments, can help the region's construction firms play a fundamental role.

5

Infrastructure remains a key development priority: transport, utilities and digital infrastructure offer standout potential to boost regional trade, generate jobs and facilitate inclusive growth. To finance these projects, the bloc aims to welcome more sustainable investments – particularly PPPs – to generate wide-ranging multiplier effects and boost global competitiveness.

6

The challenges of 2020 look set to result in lasting changes for the industry: a renewed commitment to addressing ASEAN's infrastructure gap is expected to drive demand for railways and roads as activity restarts; meanwhile, rising interest in affordable housing and green projects signals potential opportunities for ESG-compliant developments that support sustainable expansion.

