MASTER PLAN ON ASEAN CONNECTIVITY 2025

asean

one vision
one identity
one community

MASTER PLAN ON
ASEAN CONNECTIVITY 2025

The ASEAN Secretariat
Jakarta

The Association of Southeast Asian Nations (ASEAN) was established on 8 August 1967. The Member States are Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Viet Nam. The ASEAN Secretariat is based in Jakarta, Indonesia.

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VIENTIANE DECLARATION ON THE ADOPTION OF THE MASTER PLAN ON ASEAN CONNECTIVITY 2025

VIENTIANE DECLARATION ON THE ADOPTION OF THE MASTER PLAN ON ASEAN CONNECTIVITY 2025

WE, the Heads of State/Government of the Member States of the Association of Southeast Asian Nations (hereinafter referred to as ASEAN), namely, Brunei Darussalam, the Kingdom of Cambodia, the Republic of Indonesia, the Lao People's Democratic Republic, Malaysia, the Republic of the Union of Myanmar, the Republic of the Philippines, the Republic of Singapore, the Kingdom of Thailand and the Socialist Republic of Viet Nam, on the occasion of the 28th ASEAN Summit in Vientiane, Lao People's Democratic Republic;

REAFFIRMING the vision of ASEAN Leaders to build an ASEAN Community that will contribute to a more competitive, resilient and well-connected ASEAN;

RECALLING the Master Plan on ASEAN Connectivity adopted by ASEAN Leaders in Ha Noi, Viet Nam, on 28 October 2010;

RECALLING FURTHER the Kuala Lumpur Declaration on *ASEAN 2025: Forging Ahead Together* signed by all ASEAN Leaders at the 27th ASEAN Summit in Kuala Lumpur, Malaysia in November 2015 which adopted the ASEAN Community Vision 2025, the ASEAN Political-Security Community Blueprint 2025, the ASEAN Economic Community Blueprint 2025 and the ASEAN Socio-Cultural Community Blueprint 2025;

RECOGNISING that enhancing ASEAN Connectivity would continue to benefit all ASEAN Member States, through improved physical, institutional and people-to-people linkages, by promoting greater competitiveness, prosperity, inclusiveness and sense of Community;

EMPHASISING the importance of the Master Plan on ASEAN Connectivity 2025 in building the ASEAN Community as well as in supporting the implementation of the ASEAN Political-Security Community Blueprint 2025, the ASEAN Economic Community Blueprint 2025, the ASEAN Socio-Cultural Community Blueprint 2025, ASEAN sectoral work plans, and the Initiative for ASEAN Integration (IAI) Work Plan III, as well as in enhancing synergies with other sub-regional and inter-regional frameworks;

COMMENDING the work of the ASEAN Connectivity Coordinating Committee in developing the Master Plan on ASEAN Connectivity 2025 with the relevant ASEAN Sectoral Bodies and the ASEAN Secretariat;

EXPRESSING appreciation for the support shown by our Dialogue Partners and external parties towards the Master Plan on ASEAN Connectivity 2025 and their readiness to partner with ASEAN in the implementation of the Master Plan;

DO HEREBY:

1. **ADOPT** the Master Plan on ASEAN Connectivity 2025, which shall be an integral part of the *ASEAN 2025: Forging Ahead Together;*

2. **AGREE** that the Master Plan on ASEAN Connectivity 2025 will be the successor document to the Master Plan on ASEAN Connectivity adopted on 28 October 2010;

3. **RESOLVE** that ASEAN Member States as well as relevant ASEAN Organs and Bodies shall implement the Master Plan on ASEAN Connectivity 2025 in a timely and effective manner;

4. **TASK** relevant ASEAN Ministers, the Secretary-General of ASEAN, the ASEAN Connectivity Coordinating Committee, other relevant ASEAN Organs and Bodies, as well as National Coordinators and Focal Points, to coordinate closely with relevant stakeholders and to mobilise adequate resources for the implementation of the Master Plan on ASEAN Connectivity 2025; and,

5. **TASK** the ASEAN Connectivity Coordinating Committee to monitor, evaluate and report the progress and challenges of implementation of the Master Plan on ASEAN Connectivity 2025 to the ASEAN Summit on a regular basis through the ASEAN Coordinating Council in consultation with the ASEAN Political-Security Council, ASEAN Economic Community Council and ASEAN Socio-Cultural Community Council.

ADOPTED in Vientiane, Lao People's Democratic Republic this Sixth Day of September in the Year Two Thousand and Sixteen, in a single original copy, in the English Language.

MASTER PLAN ON ASEAN CONNECTIVITY 2025

ASEAN Connectivity 2025

Vision: *"To achieve a seamlessly and comprehensively connected and integrated ASEAN that will promote competitiveness, inclusiveness, and a greater sense of Community."*

	Sustainable infrastructure	Digital innovation	Seamless logistics	Regulatory excellence	People mobility
STRATEGIC OBJECTIVES	▪ Increase public and private infrastructure investment in each ASEAN Member State, as needed ▪ Significantly enhance the evaluation and sharing of best practices on infrastructure productivity in ASEAN ▪ Increase the deployment of smart urbanisation models across ASEAN	▪ Support the adoption of technology by micro, small and medium enterprises (MSMEs) ▪ Support financial access through digital technologies ▪ Improve open data use in ASEAN Member States ▪ Support enhanced data management in ASEAN Member States	▪ Lower supply chain costs in each ASEAN Member State ▪ Improve speed and reliability of supply chains in each ASEAN Member State	▪ Harmonise or mutually recognise standards, conformance, and technical regulations for products in key sectors ▪ Reduce number of trade-distorting non-tariff measures across ASEAN Member States	▪ Support ease of travel throughout ASEAN ▪ Reduce the gaps between vocational skills demand and supply across ASEAN ▪ Increase the number of intra-ASEAN international students
INITIATIVES	1 Establish a rolling priority pipeline list of potential ASEAN infrastructure projects and sources of funds 2 Establish an ASEAN platform to measure and improve infrastructure productivity 3 Develop sustainable urbanisation strategies in ASEAN cities	1 Enhance the MSME technology platform 2 Develop the ASEAN digital financial inclusion framework 3 Establish an ASEAN open data network 4 Establish an ASEAN digital data governance framework	1 Strengthen ASEAN competitiveness through enhanced trade routes and logistics 2 Enhance supply chain efficiency through addressing key chokepoints	1 Complete harmonisation of standards, mutual recognition, and technical regulations in three prioritised product groupings 2 Increase transparency and strengthen evaluation to reduce trade distorting non-tariff measures	1 Enhance ASEAN travel by making finding information easier 2 Ease ASEAN travel by facilitating visa processes 3 Establish new vocational training programmes and common qualifications across ASEAN Member States, in accordance with national circumstances of each ASEAN Member State 4 Support higher education exchange across ASEAN Member States

EXECUTIVE SUMMARY

1. Connectivity in ASEAN encompasses the physical (e.g., transport, ICT, and energy), institutional (e.g., trade, investment, and services liberalisation), and people-to-people linkages (e.g., education, culture, and tourism) that are the foundational supportive means to achieving the economic, political-security, and socio-cultural pillars of an integrated ASEAN Community.

2. Since the adoption of the Master Plan on ASEAN Connectivity 2010 (MPAC 2010[1]), notable progress has been made. As of May 2016, 39 initiatives[2] in MPAC 2010 have been completed. 18 of these completed initiatives relate to physical connectivity; 15 to institutional connectivity; and 6 to people-to-people connectivity. However, much remains to be done to realise the vision of a seamlessly connected ASEAN. Particular areas to be addressed include the various services sectors, which are lagging goods sectors in terms of connectivity as a result of tighter investment restrictions, as well as challenges relating to the mobility of skilled labour, and energy and rail connectivity. The remaining 52 uncompleted initiatives in MPAC 2010, which have a clear sector owner and do not overlap with the newly proposed initiatives, will be included in the Master Plan on ASEAN Connectivity 2025 (MPAC 2025).

3. Given the dynamic environment in which ASEAN Connectivity takes place, it is crucial to consider the emerging trends that will influence the ASEAN Connectivity 2025 agenda. These include: a doubling of the number of ASEAN households that are part of the "consuming class" over the next 15 years; the challenge of improving productivity to sustain economic progress as growth in the size of the workforce starts to slow; the movement of 90 million more people to cities within ASEAN by 2030; the need for infrastructure spending to more than double from the historical levels; the challenge of equipping the world's third-largest labour force with the skills needed to support growth and inclusiveness; the emergence of disruptive technologies; the opportunity to transform natural resource efficiency in the region; and the imperative to understanding the implications for ASEAN as the world shifts towards a multipolar global power structure.

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[1] The Master Plan on ASEAN Connectivity was adopted at the 17th ASEAN Summit on 28 October 2010 in Ha Noi, Viet Nam and hereafter referred to as MPAC 2010.

[2] Note that in MPAC 2010, these initiatives are referred to as measures. Throughout this document we refer to them as initiatives to align with the nomenclature of MPAC 2025 which uses strategic areas, initiatives, and implementing measures.

A NEW STRATEGY TO GUIDE FUTURE PROGRESS ON ASEAN CONNECTIVITY

4. The vision for the ASEAN Connectivity 2025 is to *achieve a seamlessly and comprehensively connected and integrated ASEAN that will promote competitiveness, inclusiveness, and a greater sense of Community*.

5. MPAC 2025 will focus on five strategic areas to achieve this vision:

   i. **Sustainable infrastructure.** The aim of this strategy is to coordinate existing resources to deliver support across the full life cycle of infrastructure projects in ASEAN, including project preparation, improving infrastructure productivity, and capability building. This strategy also includes exchanging lessons on "smart urbanisation" models across ASEAN Member States that can simultaneously deliver economic growth and a good quality of life.

   ii. **Digital innovation.** Digital technologies in ASEAN could potentially be worth up to US$625 billion by 2030 (8 percent of ASEAN's GDP in that year), which may be derived from increased efficiency, new products and services, etc. Capturing this opportunity requires the establishment of regulatory frameworks for the delivery of new digital services (including data management and digital financial services); support for the sharing of best practices on open data; and equipping micro, small and medium enterprises (MSMEs) with the capabilities to access these new technologies.

   iii. **Seamless logistics.** Enhancing ASEAN Connectivity presupposes excellent logistics. However, logistics efficiency has not improved at the pace originally envisaged by MPAC 2010, as measured by the length of time taken and cost of transportation in the region. One of the underlying challenges is coordination issues between government departments and a lack of sharing of best practices. There is the opportunity to create mechanisms to support greater collaboration between logistics firms, academic institutions, and ASEAN Member States: this would help to identify bottlenecks across key areas of the region's supply chains; collect and share best practices about how to tackle those issues across the region, and identify critical policy areas requiring attention.

   iv. **Regulatory excellence.** There is a need to embed good regulatory practice (GRP) in the preparation, adoption, and implementation of rules, regulations, and procedures in the region. The aim of this strategy is to support implementation of key policies critical for the ASEAN Connectivity agenda, particularly focusing on standards harmonisation, mutual recognition and technical regulations, as well as addressing trade-distorting non-tariff measures.

v. **People mobility.** Restrictions on travel for ASEAN nationals within the region are largely a thing of the past. However, there are still opportunities to improve mobility in ASEAN. Opportunities include facilitating travel for tourists by addressing the lack of information on travel options and providing simpler mechanisms to apply for necessary visas. Additionally, there is an opportunity to strengthen skills mobility in the region and, where appropriate, by establishing high-quality qualification frameworks in critical vocational occupations, and to encourage greater mobility of intra-ASEAN university students.

MAKING IT HAPPEN

6. To ensure efficient and robust implementation of MPAC 2025, it will be crucial to address six core areas that past academic research has found to be critical for effective government delivery:[3]

i. **Strong focus and targets.** Successful strategies normally have no more than three to six priority areas. Given resource constraints in ASEAN, it is important to focus on a small set of programmes, which are prioritised for potential return and speed of implementation. MPAC 2025 has focused on just five new strategies in order to maximise the likelihood of success. It is also vital to have targets that are specific, measurable, actionable, realistic (but challenging), and timely (SMART). Not only does each of the five strategic areas have clear outcome-level goals associated with them, but there are also clear output and input-level metrics to measure progress for each of the initiatives within these strategic areas.

ii. **Clear governance and ownership.** The presence of empowered leaders who are held accountable for delivering results is often a clear distinguishing factor between successful and unsuccessful implementation. For each initiative in MPAC 2025, there is a clear lead implementing body. In addition, each of the five strategies will have two ASEAN Connectivity Coordinating Committee (ACCC) representatives assigned to help review and accelerate progress.

iii. **Clear and aligned plans***.* The starting point for successful implementation is to ensure that there is a vision which is both realistic and clear, with alignment and clarity at all relevant levels of government and with external stakeholders. To enhance the alignment going forward, MPAC 2025 will

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[3] *Instruction to Deliver: Fighting to Transform Britain's Public Services*, Michael Barber, 2007; *Delivery 2.0: The New Challenge for Governments*, McKinsey & Company, 2012.

create National Focal Points at the initiative level to complement the work of the existing ASEAN Connectivity National Coordinators. This can help ensure better coordination with the relevant implementing bodies in each ASEAN Member State.

iv. **Presence of core skills, incentives, and finance.** A high-functioning delivery system has access to the critical skills it needs to execute its mission, with strong incentives to motivate performance, supported by access to necessary finance. The National Focal Points and relevant implementing bodies will be critical to the successful delivery of MPAC 2025. There is a need to strengthen the ASEAN Connectivity Division to support the implementation of MPAC 2025.

v. **Proactive stakeholder engagement.** Proactive stakeholder engagement requires the cultivation of relationships that will be critical to the success of the programme, alongside regular communications about the delivery effort and associated priorities. To support this, the ASEAN Secretariat will provide regular (e.g., annual) updates to key business associations and other external stakeholders on the progress in implementing MPAC 2025. In addition, the ASEAN Secretariat will develop the ASEAN Connectivity website to include regular updates on progress, and look to offer spokespeople for the connectivity agenda at key conferences.

vi. **Robust performance management.** An impartial and rigorous performance-tracking system must be a data-driven, fact-based process with a regular cycle of updates. There should also be mechanisms to ensure problems are identified and flagged up at an early stage, and then solved in order of priority. To achieve this, semi-annual progress reviews will be held for each of the five strategic areas; these will be conducted with the ACCC leads for the specific strategic area, the ASEAN Secretariat, the National Coordinators and National Focal Points, and the Chairs of the relevant ASEAN Sectoral Bodies.

1

INTRODUCTION

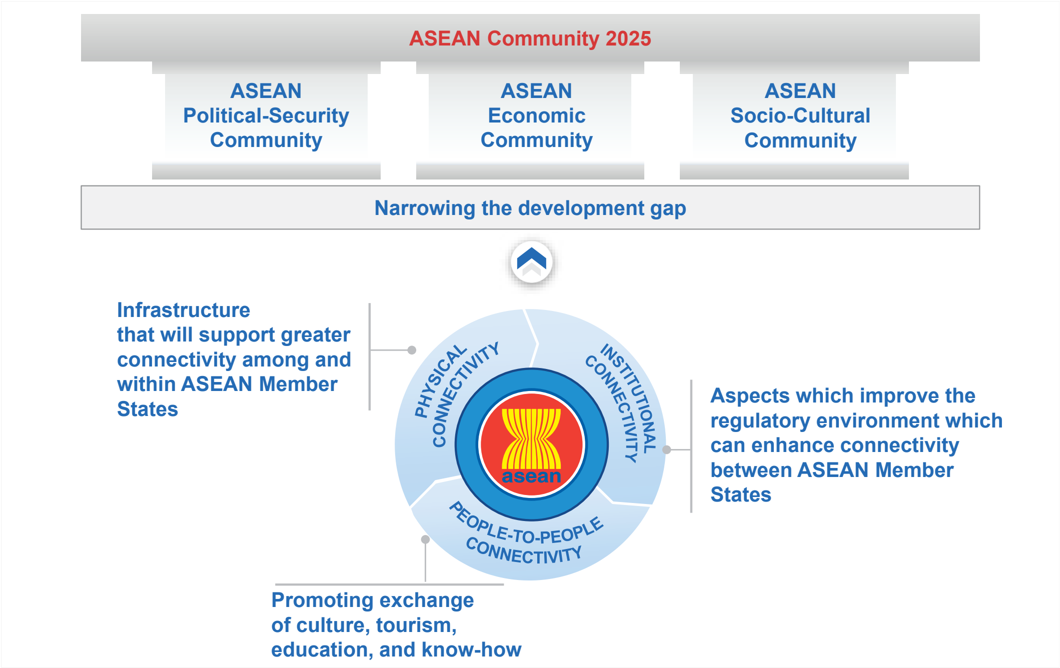
Chapter 1

Introduction

1. Connectivity in ASEAN refers to the physical, institutional, and people-to-people linkages that can contribute towards a more competitive, inclusive, and cohesive ASEAN. Greater connectivity supports the political-security, economic, and socio-cultural pillars of an integrated ASEAN Community (Exhibit 1).

EXHIBIT 1

ASEAN Connectivity 2025: An Integral Part of ASEAN Community Vision 2025



2. The Master Plan on ASEAN Connectivity 2010 (MPAC 2010[4]) is a strategic document to guide actions to improve connectivity in the region. At the 25th ASEAN Summit in Nay Pyi Taw in November 2014, ASEAN Leaders tasked the ASEAN Connectivity Coordinating Committee (ACCC) to conduct a comprehensive review of MPAC implementation and formulate the Master Plan on ASEAN Connectivity 2025 (MPAC 2025).

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[4] The Master Plan on ASEAN Connectivity was adopted at the 17th ASEAN Summit on 28 October 2010 in Ha Noi, Viet Nam and hereafter referred to as MPAC 2010.

3. MPAC 2025 seeks to add value by complementing and synergising the ASEAN Community Blueprints 2025, ASEAN sectoral work plans, and the Initiative for ASEAN Integration (IAI) Work Plan III, as well as enhancing synergies with other sub-regional and inter-regional frameworks, in five ways (Exhibit 2):

EXHIBIT 2

How does MPAC 2025 add value to the ASEAN sectoral work plans?

	Area of value	Description
1	**A**dditionality	MPAC 2025 may create new initiatives (not in the sectoral plans) that are considered crucial for improving physical, institutional, or people-to-people connectivity.
2	**B**readth	MPAC 2025 may expand the coverage of initiatives in existing sectoral plans so that they include the areas identified to be important from a connectivity perspective.
3	**C**oordination	MPAC 2025 can help ensure effective coordination of initiatives that cut across multiple working groups to maximise the likelihood of successful implementation.
4	**D**epth	For those initiatives that are considered important for connectivity, MPAC 2025 aims to maximise the likelihood of successful implementation by helping to detail out the initiatives and how to deal with potential barriers to success.
5	**E**mphasis	For initiatives that are considered important for connectivity, and for which a clear action plan is already in place, MPAC 2025 will seek to highlight the importance of these initiatives.

2

ANALYSING PROGRESS ON CONNECTIVITY IN ASEAN

Chapter 2

Analysing Progress on Connectivity in ASEAN

1. Progress on connectivity in ASEAN was assessed for each of the 19 strategies included in MPAC 2010 (Exhibit 3).

Physical Connectivity

2. Progress on major infrastructure projects supporting physical connectivity in ASEAN has been mixed. Notable progress has been made on the ASEAN Highway Network (AHN), which aims to establish efficient, integrated, safe, and environmentally sustainable regional land transport corridors linking all ASEAN Member States and neighbouring countries. There are no more AHN missing links in the region and the total length of roads below Class III[5] reduced by 46.2%, from 5,311.2 km in 2010 to 2,454 km in 2015, which includes 1,200 km on the priority Transit Transport Routes (TTR).[6]

3. The implementation of Singapore-Kunming Rail Link (SKRL) sections from Singapore to Phnom Penh are on schedule. However, the SKRL sections from Cambodia to Viet Nam as well as those in Lao PDR are still seeking funding for project implementation. The Neak Loeung Bridge was inaugurated and operationalised in April 2015.

4. As a follow-up to the recommendations of the MPAC 2010 and the Feasibility Study on the Establishment of an ASEAN Roll-on/Roll-off (RoRo) Shipping Network and Short-sea Shipping which was completed in March 2013, ASEAN Member States agreed to focus on operationalising any of the three priority routes (i.e. Dumai-Melaka, Belawan-Penang-Phuket, and Davao/General Santos-Bitung).

5. Nine power interconnection projects under the ASEAN Power Grid (APG) and thirteen bilateral gas pipelines under the Trans-ASEAN Gas Pipeline (TAGP) have been completed. The latest project was successfully completed and synchronised on 20 January 2016 between Sarawak – West Kalimantan and is currently supplying 70MW of electricity. Despite the scope and complexities,

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[5] Primary roads are access-controlled motorways; Class I roads are highways with four or more lanes; Class II roads are two-lane roads (which are cement or concrete); Class III roads are narrow two-lane roads with double bituminous treatment.

[6] *ASEAN Transport Strategic Plan 2016-2025*, November 2015. Although the total length of roads below Class III has reduced, Lao PDR and Myanmar have put up efforts to upgrade their below Class III roads on TTR as envisaged under MPAC 2010.

implementation of the energy interconnection projects under the APG and the TAGP has seen steady progress over the years. However, challenges such as resource constraints, bankability, and technical and regulatory issues will need to be addressed.

6. The study on the establishment of the ASEAN Broadband Corridor has been completed and endorsed in March 2013. This has provided the framework to identify key drivers for broadband rollout and recommendations on specific government initiatives to influence each key driver of broadband rollout. The ASEAN Internet Exchange Network (AIX) project was concluded with a report on the status of peer-to-peer connections between Internet Exchange providers across ASEAN Member States and a recommendation to encourage private sector operators to establish more peer-to-peer connections with their ASEAN counterparts across the borders. The procurement of the implementer of the feasibility study on Establishing an ASEAN Single Telecommunications Market is currently in process.

Institutional Connectivity

7. While efforts to operationalise the three transport facilitation agreements of ASEAN Framework Agreement on the Facilitation of Goods in Transit (AFAFGIT), ASEAN Framework Agreement on the Facilitation on Inter-State Transport (AFAFIST) and ASEAN Framework Agreement on Multimodal Transport (AFAMT) are currently ongoing, completion of the relevant protocols to AFAFGIT and the ratification of agreements and their protocols remain pending.

8. Both the Air Transport Economic Cooperation Work Plan (2014-2015) and Air Transport Technical Cooperation Work Plan (2014-2015) were adopted to further facilitate the establishment of the ASEAN Single Aviation Market (ASAM). The Implementation Framework of the ASEAN Single Shipping Market including its Action Plan was also developed.

9. Trade facilitative measures are being undertaken to achieve free flow of goods and services. The soft launch of ASEAN Solutions for Investments, Services and Trade (ASSIST) / ASEAN Trade Repository (ATR) took place at the ASEAN Business and Investment Summit 2015. The ASEAN Policy Guidelines on Standards, Technical Regulations and Conformity Assessment Procedures (STRACAP) and the ASEAN Policy Guidelines on Accreditation and Conformity Assessment were adopted in 2015. On 2 March 2016, Indonesia and Singapore began exchanging live electronic ASEAN Trade in Goods Agreement (ATIGA) Certificate of Origin Form D information in the production environment using the ASEAN Single Window (ASW) enabling infrastructure. Most of the work done on the enhancement of border management capabilities is being done

at the sub-regional and bilateral levels while efforts at the ASEAN level require further acceleration.

People-to-People Connectivity

10. There are notable developments in promoting deeper intra-ASEAN social and cultural understanding. The ASEAN Curriculum Sourcebook (for primary and secondary schools) was developed in 2012, and ASEAN is now working on ways to promote utilisation of the Sourcebook, in addition to the existing supplementary materials on ASEAN studies in schools. The website management of the ASEAN Virtual Learning Resource Centre (AVLRC) which focuses on ASEAN's peoples, news, culture, travel, studies and opportunities has been continuing since its soft launch in March 2015.

11. The ASEAN University Network (AUN) has progressed well with a number of initiatives (for instance, credit transfer schemes, quality assurance). However, the significant differences in curricula and standards among institutions, limited financial resources for student and staff exchange, and language differences have all constrained progress.

12. There have also been steps taken to encourage intra-ASEAN tourism through the concerted development of tourism products (for example, heritage sites, cruises, home stay, health and medical tourism, and eco-tourism); easier access to tourism areas; and affordable packages.

13. Progress on freer mobility of skilled labour in ASEAN has been limited. Seven mutual-recognition arrangements have been concluded (between 2005 and 2014) covering engineering services, nursing, architectural services, tourism, medical practitioners, dental practitioners, and accounting services; as well as a framework arrangement covering surveying. However, many gaps still remain. For example, in the tourism sector, ASEAN has published competency standards and curricula, and launched a registration system for tourism professionals in August 2016, but it has not standardised procedures for visa issuance. In health care, there has been limited published progress in drawing up common standards and visa procedures. In addition, corresponding changes in national laws and regulations to allow ASEAN certified professionals to practice their professions in another Member State have not yet been fully finalised in any Member State.

EXHIBIT 3

Assessment of MPAC 2010 strategies

Overall strategy bucket	Strategy	Original expected timeline													Number of total initiatives	Number of initiatives completed by end May 2016[1]
		08	09	10	11	12	13	14	15	16	17	18	19	20		
1 Physical connectivity	Complete the ASEAN Highway Network					■	■	■	■	■	■	■	■	■	11	2
	Complete the implementation of SKRL project						■	■	■	■	■	■	■	■	11	1
	Establish an integrated inland waterways network					■									1	0
	Accomplish an integrated maritime transport system								■						4	1
	Establish an integrated multimodal transport system								■	■	■	■	■	■	8	3
	Accelerate the development of ICT Infrastructure and services						■	■	■						7	6
	Prioritise processes to resolve institutional issues in energy infrastructure	■	■	■	■	■	■	■	■						13	5
2 Institutional connectivity	Operationalise the 3 Framework Agreements on Transport Facilitation (AFAFGIT; AFAFIST; AFAMT)				■	■	■	■	■						6	2
	Implement measures to facilitate inter-state passenger land transportation						■	■	■						2	0
	Develop the ASEAN Single Aviation Market (ASAM)	■	■	■	■	■	■	■	■						9	2
	Develop an ASEAN Single Shipping Market					■			■						2	2
	Accelerate the free flow of goods within ASEAN region by eliminating barriers to merchandise trade within the region							■	■	■	■	■			15	4
	Accelerate the development of an efficient and competitive logistics sector, in particular transport, telecommunications, and other connectivity-related services in the region			■	■	■	■	■							2	0
	Substantially improve trade facilitation in the region					■	■	■	■						6	2
	Enhance border management capabilities						■								3	0
	Accelerate further opening up of ASEAN Member States to investments from within and beyond the region under fair investment rules								■						2	2
	Strengthen institutional capacity in lagging areas in the region and improve regional/sub-regional coordination of policies, programmes, and projects				■	■									3	1
3 People-to-people Connectivity	Promote deeper intra-ASEAN social and cultural understanding					■	■	■	■						10	5
	Encourage greater intra-ASEAN people mobility				■	■	■	■	■						10	1
	TOTAL[1]														**125**	**39**

[1] Assessment of the 19 strategies and 125 initiatives. Note: in MPAC 2010, these initiatives are referred to as measures. The term initiatives is used to align with the nomenclature of MPAC 2025.

SOURCE: ASEAN Secretariat

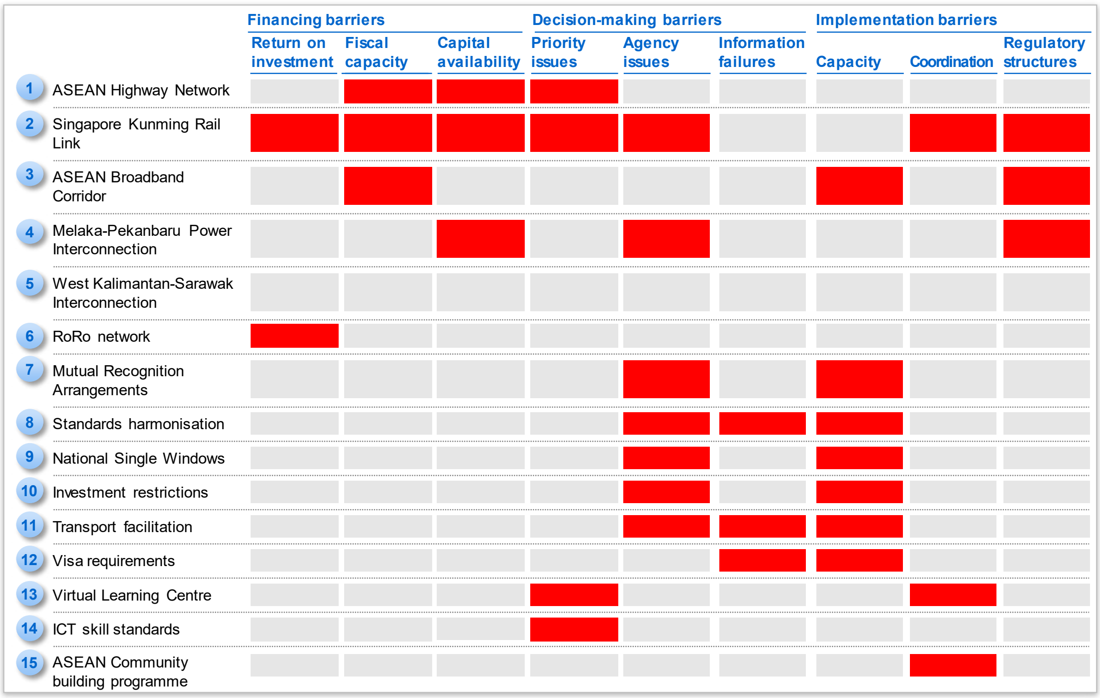
IDENTIFYING BARRIERS TO PROGRESS

14. In order to better understand the progress on ASEAN Connectivity projects and the challenges encountered, the 15 prioritised projects in MPAC 2010 were analysed in detail (Exhibit 4).

EXHIBIT 4

Assessment of major barriers for 15 prioritised projects in MPAC 2010

🟥 Major barrier



	Financing barriers			Decision-making barriers			Implementation barriers		
	Return on investment	Fiscal capacity	Capital availability	Priority issues	Agency issues	Information failures	Capacity	Coordination	Regulatory structures
1 ASEAN Highway Network		🟥	🟥	🟥					
2 Singapore Kunming Rail Link	🟥	🟥	🟥	🟥	🟥			🟥	🟥
3 ASEAN Broadband Corridor		🟥					🟥		🟥
4 Melaka-Pekanbaru Power Interconnection			🟥		🟥				🟥
5 West Kalimantan-Sarawak Interconnection									
6 RoRo network	🟥								
7 Mutual Recognition Arrangements					🟥		🟥		
8 Standards harmonisation					🟥	🟥	🟥		
9 National Single Windows					🟥		🟥		
10 Investment restrictions					🟥		🟥		
11 Transport facilitation					🟥	🟥	🟥		
12 Visa requirements						🟥	🟥		
13 Virtual Learning Centre				🟥				🟥	
14 ICT skill standards				🟥					
15 ASEAN Community building programme								🟥	

SOURCE: Asian Development Bank; ASEAN Secretariat; ERIA; World Bank

15. A closer look at the 15 prioritised projects, as well as broader barriers related to ASEAN Connectivity projects, reveals some common challenges. These include:

Financing barriers

i. **Return on investment.** Some of the projects faced challenges due to a lack of sufficiently attractive return on investment to encourage private-sector investment, even if there were large potential societal benefits. In some instances, while the overall return was attractive, the project economics were undermined by unacceptable risks for the private sector to take on board. These concerns related particularly to the major infrastructure projects, such as the SKRL. For example, low projected traffic, competition for resources from other development projects, and the relative attractiveness of alternative transport sectors has deterred progress on many SKRL projects.[7] Even projects on high-traffic rail routes have frequently needed subsidies in order to break even, and the low traffic forecasts for some sections of the SKRL make this project even more challenging from a financial viewpoint. The RoRo project, which is much earlier in its development, also faces some concerns around return on investment related to whether the network can deliver a more cost-effective solution than existing alternatives (for example, air transport for passengers and goods).

ii. **Fiscal capacity (of ASEAN Member States).** Many ASEAN Member States face urgent priorities around fiscal consolidation, which can reduce the capacity and incentive to invest in infrastructure projects. In this context, difficult choices need to be made between longer-term infrastructure investment and other immediate priorities such as education, healthcare, social services, and other welfare support. These are priority concerns in economies where the rising cost of living is a major issue.[8]

iii. **Capital availability (from alternative sources)**. Given the size of the investment requirements of many projects and the constraints on ASEAN Member States' budgets, there is a need to mobilise resources from other sources, whether these be multilateral funds, pension funds, bond markets, other governments, or the private sector. Despite rapid growth, domestic capital markets in most ASEAN Member States currently provide limited opportunities to source project finance for infrastructure projects, particularly outside Singapore, Thailand, and Malaysia. Some components of major ASEAN Connectivity-related infrastructure projects currently encounter challenges due to constraints in accessing capital, such as the AH15 route on the ASEAN Highway Network (a 132 kilometre road from Ban Lao to Nam Phao).

Decision-making barriers

iv. **Prioritisation issues.** This barrier arises when key decision-makers consider an issue to be of low priority versus other issues. For example, progress on infrastructure projects in ASEAN to date has been overwhelmingly linked to whether national policymakers have seen this as a national priority and hence in their interests to push.[9]

v. **Agency issues**. These relate to a misalignment of incentives between stakeholders. Some of the notable barriers include local residents resisting land acquisition for infrastructure projects, national regulators

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[7] *ASEAN Connectivity: Building a PPP Pipeline*, The World Bank Group, December 2014.

[8] *Lifting the barriers roundtable: Infrastructure, power and utilities*, CIMB ASEAN Research Institute (CARI) and McKinsey & Company, 2013.

[9] *ASEAN Connectivity: Building a PPP pipeline*, The World Bank Group, December 2014.

with a different set of incentives from trade officials, and cross-border infrastructure projects where there is debate over the respective distribution of benefits—population densities vary significantly across ASEAN Member States and this can change the cost-benefit analysis significantly across countries participating in an infrastructure project. Concerns around inter-agency coordination and delegation of authority may also be problematic. For example, in the context of implementing National Single Windows, the challenge of persuading different trade-related government departments to accept transfer of some of their authority to a central agency is highlighted.

vi. **Information issues.** These issues occur when stakeholders do not have sufficient information about the true nature of the benefits and costs of an opportunity or, indeed, the opportunity itself. For example, in the case of liberalisation of investment restrictions, an evidence base appears to be lacking around how a particular country can benefit from the removal of barriers. This is potentially most problematic when it comes to infrastructure-related projects where there is a limited understanding across many ASEAN Member States on the prioritisation of infrastructure projects and the optimal funding structures to launch these projects. Even when the pipeline of infrastructure projects is clear, there may still be gaps in the information needed by private sector investors to make a fair and accurate assessment of a project's viability. For example, in some ASEAN Member States, Independent Power Producers (IPPs) are often required to identify the land upon which a plant will be built and conduct extensive due diligence, such as site surveys, geological investigation, and environmental impact assessments, in order to arrive at a cost estimate. This may result in investors estimating higher project cost and risk premiums where there is a lack of available, accessible and accurate information; furthermore, this approach will take time affecting the tender and implementation process, and can lead to unnecessary duplication of efforts across bidders.

Implementation barriers

vii. **Capacity.** These barriers relate to gaps in the supply chain that prevent access to the critical components (such as appropriate technologies) needed to capture an opportunity and a lack of skilled labour necessary for its implementation. This was highlighted as a major concern in institutional-related areas: there exists the challenge of frequent turnover of officials in working groups, and a lack of understanding of the trade agenda and technical best practice. In infrastructure projects, this was not considered to be a major concern at the implementation stage—although many cited opportunities to improve delivery—but more related to capacity gaps in the planning stages, prior to implementation.

viii. **Coordination.** This relates to the lack of alignment on the project approach (for example, harmonising signalling systems for cross-border rail projects); a lack of coordination with other initiatives where there may be important inter-dependencies (such as integrating sea and road transport links); and alignment across government departments. Coordination issues were most challenging on infrastructure projects in ASEAN. For example, it is not uncommon for over 15 distinct decision-making entities to be involved in a typical transport infrastructure project, with limited accountability and mechanisms to attain consensus.[10]

ix. **Regulatory structures**. A lack of regulatory structures to support implementation (such as lack of relevant standards or protocols or absence of defined property rights) can act as a barrier. For example, a major issue preventing infrastructure development is the need for a clear process for securing regulatory approvals in many ASEAN Member States. In contrast, legislation in Malaysia and Singapore allows government to acquire land for projects that are deemed to be in the public interest, and the government assumes responsibility for acquiring the land. Further barriers can include the absence of established framework agreements for negotiating commercial terms for projects (such as the cost-benefit sharing of cross-border infrastructure projects). However, this was not considered an issue in energy projects, where there is a strong track record internationally and some agreed basic templates. Nonetheless, it was considered to be more of an issue with other projects where there is less of an international "norm", such as railways.

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[10] *Lifting the barriers roundtable: Infrastructure, power and utilities*, CIMB ASEAN Research Institute (CARI) and McKinsey & Company, 2013.

3

TRENDS LIKELY TO IMPACT ASEAN CONNECTIVITY 2025

Chapter 3

Trends Likely to Impact ASEAN Connectivity 2025

1. In formulating the MPAC 2025, it is important to consider the global and regional context. Ten interrelated trends are likely to be of particular relevance for the connectivity agenda.

A. THE RISE OF THE CONSUMING CLASS

2. Already some 81 million households in ASEAN Member States are part of the "consuming class," with incomes exceeding the level at which they can begin to make significant discretionary purchases.[11] As huge population continue to move to cities for better job opportunities, that number could double to 163 million households by 2030.[12] This potentially dramatic consumption shift is expected to provide an important impetus for the growth of intra-ASEAN trade and tourism. The total number of intra-ASEAN tourists was roughly 44 percent of all tourist arrivals in ASEAN in 2014 and has been growing at 8.9 percent per annum since 2010. The rich cultural heritage and natural attractions in ASEAN Member States are significant strengths and suggest considerable potential in tourism, especially considering the growth of the consuming class in Asia. McKinsey Global Institute estimates that Asian tourists will make 525 million trips within the region by 2030. Of this number, 200 million trips will originate from China alone.[13] The World Travel and Tourism Council (WTTC) forecasts that the tourism sector in Southeast Asia could grow to over US$200 billion by 2025, almost double today's levels.[14] To capture this opportunity, ASEAN Member States will need to invest substantially in tourism infrastructure and encourage easier access to travel visas.

B. THE PRODUCTIVITY AND COMPETITIVENESS CHALLENGE

3. Improving productivity in ASEAN will be crucial for two interrelated reasons. The first is that improving productivity will be vital to maintaining the current growth momentum in the region. While the demographics are favourable in ASEAN compared with most other countries, the boost to economic growth from an expanding workforce will eventually begin to taper. In fact, many

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[11] Defined as households with more than US$7,500 in annual income (in 2005 purchasing power parity terms).

[12] *Southeast Asia at the crossroads: Three paths to prosperity,* McKinsey Global Institute, November 2014.

[13] *Myanmar's moment: Unique opportunities, major challenges*, McKinsey Global Institute, June 2013.

[14] *Travel & Tourism Economic Impact 2015: Southeast Asia*, World Travel and Tourism Council, 2015.

ASEAN Member States will need to more than double their historical rates of productivity gains to sustain their past pace of economic growth. Where could this productivity improvement come from? While the answer will vary greatly for each ASEAN Member State, past academic research has identified three areas with the highest potential for productivity and growth across ASEAN over the next 15 years: capturing a greater share of global flows in trade, services, data, and investment through completing major trade deals and seeking to improve competitiveness in trade-related areas; riding the urbanisation wave in the region through development of efficient and sustainable infrastructure solutions; and taking advantage of disruptive technologies across a range of different sectors.[15]

4. The second consideration relates to international competitiveness and the need to take advantage of ASEAN's window of opportunity to grab a larger share of the global manufacturing footprint. The transitions taking place in China, including rising labour costs and the shift towards an economic model that is less reliant on exports, are creating ripple effects across Southeast Asia. ASEAN Member States have an opportunity to capture a greater share of global manufacturing, but only if productivity and logistics competitiveness improves.

C. THE RISE OF THE MIDDLEWEIGHTS

5. In 2014, only 36 percent of ASEAN's population was urban, still well below the proportion in North America (77 percent), Western Europe (63 percent), or Central and Latin America (55 percent).[16] An additional 90 million people are forecast to move to cities in ASEAN by 2030 and many of the fastest-growing cities will be smaller "middleweight" cities (rather than the capital cities); these cities, with 200,000 to 2 million people, are expected to drive almost 40 percent of the region's GDP growth through 2030. Indeed, 89 of the region's cities are expected to experience real annual GDP growth of more than 7 percent, and only two of these are large cities with populations exceeding 5 million (Yangon and Manila). There will be a crucial need to exchange "know-how" on developing cities in a liveable and sustainable way.

D. THE INFRASTRUCTURE OPPORTUNITY

6. Following the Asia Financial Crisis of 1997–98, a significant infrastructure deficit emerged as ASEAN Member States sought to rein in current account deficits and foreign investment. As a result, investment as a share of GDP has not returned to pre-1997 levels in most ASEAN economies.[17] Various

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[15] *Southeast Asia at the crossroads: Three paths to prosperity,* McKinsey Global Institute, November 2014.

[16] "Urban" defined as population living in cities with a population greater than 200,000.

[17] *ASEAN: The Next Horizon*, ANZ Economics Research, 24 April 2015.

studies have estimated the region's annual infrastructure needs, which exceed US$110 billion a year.[18] This is roughly two to six times the annual amount spent historically.

7. Funding vehicles are also emerging that could support infrastructure development. These include the Asia Bond Fund (ABF); the Asian Bond Market Initiative (ABMI); the ASEAN Infrastructure Fund (AIF); the Asian Infrastructure Investment Bank (AIIB); the New Development Bank (NDB) and the expanded Partnership for Quality Infrastructure (PQI). Despite this increase in availability of funds, it will remain essential to encourage more private sector investment in infrastructure in the region. Recent research in ASEAN demonstrates that, while there has been progress in improving Public Private Partnership (PPP) frameworks in the region, much work still remains in areas such as risk-sharing arrangements and project development.[19]

E. THE TRANSFORMATION OF GLOBAL FLOWS

8. Given its proximity to China, India and Japan, ASEAN is well positioned to benefit from all types of global flows with more than half of the world's "consuming class" living around the region by 2025.[20] Technology is further accelerating global flows. Digital flows, which were practically non-existent just 15 years ago, now exert a larger impact on GDP growth than the centuries-old trade in goods.[21] The amount of cross-border bandwidth that is used has grown 45 times larger since 2005. It is projected to increase by an additional nine times over the next five years as flows of information, searches, communication, video, transactions, and intra-company traffic continue to surge.

9. The promotion of free flow of goods, services, investment, and skilled labour among ASEAN Member States, under the ASEAN Economic Community (AEC), could further support intra-regional trade in ASEAN, which is currently less than a third of the share of total ASEAN trade. In addition to the AEC, there has been development of broader trade agreements within the region, such as the Regional Comprehensive Economic Partnership (RCEP) and Trans-Pacific Partnership (TPP), which aim to promote stronger economic ties.

10. Beyond these trade agreements, there are a number of cooperation frameworks that could enhance connectivity and global flows, such as the Agreement on

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[18] *ASEAN Investment Report 2015: Infrastructure Investment and Connectivity*, ASEAN Secretariat and UNCTAD, November 2015.

[19] See for example, *PPP Infrascope 2014: PPP Readiness Index for Asia*, Economist Intelligence Unit and the Asian Development Bank 2014; and Fauziah Zen and Michael Regan, *Financing ASEAN Connectivity*, ERIA, 2014.

[20] Defined as households with more than $7,500 in annual income (in 2005 purchasing power parity terms).

[21] *Digital globalization: The new era of global flows*, McKinsey Global Institute, February 2016.

ASEAN Energy Cooperation and ASEAN transport facilitation agreements. Sub-regional arrangements such as Greater Mekong Subregion (GMS), Mekong River Commission (MRC), Brunei Darussalam-Indonesia-Malaysia-Philippines-East ASEAN Growth Area (BIMP-EAGA), and Indonesia-Malaysia-Thailand Growth Triangle (IMT-GT) also play significant role in enhancing regional connectivity. Synergies between ASEAN and these sub-regional arrangements should be encouraged for further enhancement of regional connectivity and global flows.

F. THE SKILLS CHALLENGE

11. ASEAN Member States need to rapidly develop their human capital and workforce skills. Today, 11 percent of ASEAN's population have no education, and roughly 60 percent have only primary education or lower. In Indonesia and Myanmar alone, there is a projected undersupply of 9 million skilled and 13 million semi-skilled workers by 2030.[22] Recent academic research suggests that, based on current trends, more than half of all high-skill employment in Cambodia, Indonesia, Lao PDR, the Philippines, Thailand, and Viet Nam could be filled by workers with insufficient qualifications by 2025.[23] In addition, skills gaps are a major driver of inequality and poverty in the region. Approximately 92 million ASEAN workers (roughly 30 percent of the region's workforce) live on less than $2 per day.[24]

G. DEPLOYING DISRUPTIVE TECHNOLOGIES

12. Disruptive technologies (particularly mobile Internet, big data, cloud technology, the Internet of Things, the automation of knowledge work and the Social-Mobile-Analytics-Cloud (SMAC))" could potentially unleash some $220 billion to $625 billion in annual economic impact in ASEAN by 2030, which may be derived from increased efficiency, new products and services, etc.[25] There are several areas relating to disruptive technologies where ASEAN Member States could be at the forefront of change, as opposed to simply utilising existing technologies; these include education, e-commerce, payments solutions, and cloud-based technologies.

13. To capture this opportunity, however, issues related to the connectivity agenda will be central: for example, policy makers will need to prioritise building the

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[22] For further details, see McKinsey Global Institute's reports: on Indonesia, *The archipelago economy: Unleashing Indonesia's potential*, September 2012; and *Myanmar, Myanmar's moment: Unique opportunities, major challenges*, June 2013.

[23] *ASEAN Community 2015: Managing integration for better jobs and shared prosperity*, Asian Development Bank and the International Labour Organisation, August 2014.

[24] Ibid.

[25] *Southeast Asia at the crossroads: Three paths to prosperity*, McKinsey Global Institute, November 2014.

backbone infrastructure (including fibre connections and mobile networks) that can provide universal and low-cost Internet access. As private players are unlikely to undertake the full scope of the build-out, governments will have to drive this effort forward; those that do, could secure a deep and lasting advantage. Additional challenges include establishing a policy framework for data sharing, online privacy, and cybersecurity, as well as supporting MSMEs in technology adoption.

H. THE RESOURCE REVOLUTION

14. ASEAN Member States will need to rethink approaches to natural resource efficiency and resource supply in order to meet imminent challenges. Consider energy as one example: energy demand grows by 80% from today to just under 1100 Mtoe in 2040, accompanying a regional economy that more than tripled in size and a population that rises by almost a quarter to 760 million.[26] In addition, ASEAN is acutely exposed to the risks of climate change and to the environmental pressures of groundwater depletion, air pollution, and unsustainable management of fisheries, while also facing fiscal pressure from the mounting cost of resource subsidies and challenges with ensuring access to basic resources such as energy and water. There are large prospects across ASEAN to capture natural resource productivity opportunities spanning energy, water, land, and materials, as well as to develop additional energy resources, such as biofuels, geothermal, biomass, solar, and hydropower. For example, ASEAN is naturally endowed with hydropower: Myanmar alone has potential hydropower production capacity of 108,000 megawatts, and Lao PDR already receives over 13 percent of its energy needs from hydropower.[27]

I. THE PATCHWORK GLOBAL ECONOMY

15. While the global economic recovery continues after the financial crisis, growth has been subdued and uneven across major economies. The International Monetary Fund (IMF) has warned that the global economy could be entering a “new mediocre” period of protracted low growth, undermined by issues such as deleveraging, constraints to private-sector investment, and ageing populations.[28]

16. There are several implications for ASEAN and the connectivity agenda arising from this “patchwork” global economic outlook. If the global economy does

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[26] *World energy outlook special report: Southeast Asia energy outlook,* International Energy Agency and ERIA, September 2015.

[27] Ibid.

[28] *Lagarde: Prevent “New Mediocre” From Becoming “New Reality”,* IMF-World Bank Spring Meetings, April 9 2015.

indeed experience a protracted period of sluggish growth, the external trade environment for ASEAN could become increasingly tough. On the positive side, if ASEAN can create an attractive environment for foreign direct investment, the region's strong growth potential and expanding consumer market (as described earlier) could result in the ability to attract a larger share of global foreign investment flows.

J. A NEW AGE OF GEOSTRATEGIC CONCERNS

17. A number of geopolitical trends will shape ASEAN over the coming decade. These include: the shift towards a multipolar global power structure; unresolved and overlapping territorial and maritime claims; rising defence spending;[29] displacement of people; domestic political processes; and various transnational issues. It is important for the ASEAN Connectivity agenda to take into account the implications of these emerging geostrategic trends.

K. IMPLICATIONS FOR MPAC 2025

18. These ten trends will have a number of implications for MPAC 2025 (Exhibit 5). From the dimension of physical connectivity, there will be a significant need to upgrade infrastructure to support the urbanisation process, the digital economy opportunity, the need to improve key logistics routes, and to address the historical underinvestment in infrastructure. From an institutional connectivity perspective, the rise of the ASEAN consuming class fuelling intra-ASEAN trade, the imperative to improve logistics competitiveness, and the need for new frameworks to support the capture of available digital technology opportunities, will require a renewed focus on regulatory issues. Finally, from a people-to-people connectivity perspective, capturing the growth of intra-ASEAN tourism will require easing travel restrictions in terms of visas and improving information availability on travel options. There will also need to be a strong focus on capability building, particularly related to vocational skills, to ensure that ASEAN Member States have a workforce that is well prepared for future needs.

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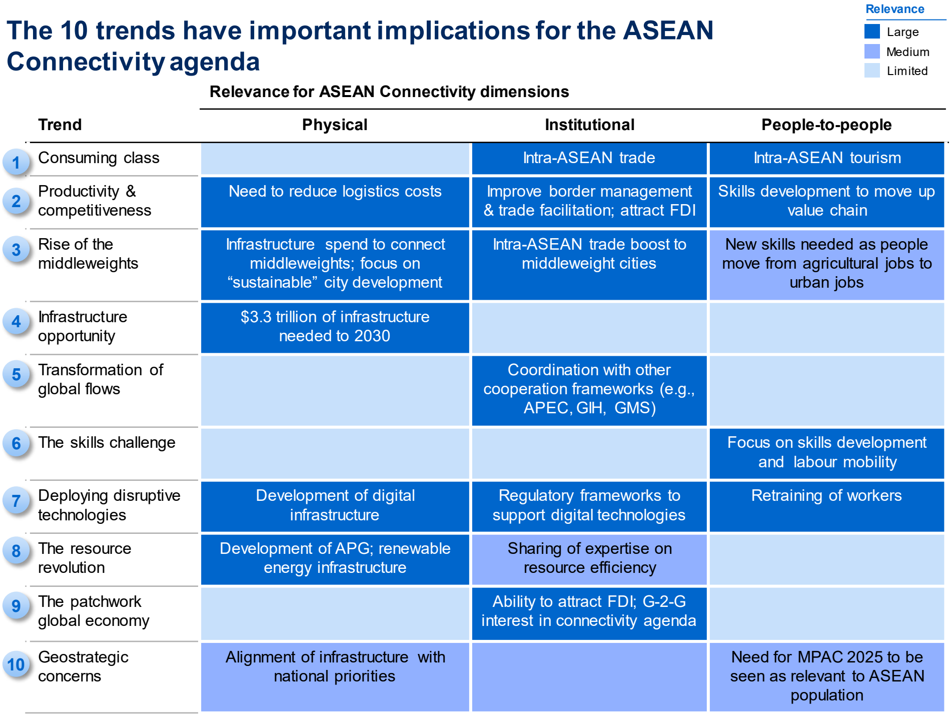
[29] According to the Stockholm International Peace Research Institute's *Trends in World Military Expenditure 2015,* military expenditure in Southeast Asia has risen by 45 percent from 2005 to 2014.

EXHIBIT 5

The 10 trends have important implications for the ASEAN Connectivity agenda



Relevance
Large
Medium
Limited

Relevance for ASEAN Connectivity dimensions

Trend	Physical	Institutional	People-to-people
1 Consuming class		Intra-ASEAN trade	Intra-ASEAN tourism
2 Productivity & competitiveness	Need to reduce logistics costs	Improve border management & trade facilitation; attract FDI	Skills development to move up value chain
3 Rise of the middleweights	Infrastructure spend to connect middleweights; focus on "sustainable" city development	Intra-ASEAN trade boost to middleweight cities	New skills needed as people move from agricultural jobs to urban jobs
4 Infrastructure opportunity	$3.3 trillion of infrastructure needed to 2030		
5 Transformation of global flows		Coordination with other cooperation frameworks (e.g., APEC, GIH, GMS)	
6 The skills challenge			Focus on skills development and labour mobility
7 Deploying disruptive technologies	Development of digital infrastructure	Regulatory frameworks to support digital technologies	Retraining of workers
8 The resource revolution	Development of APG; renewable energy infrastructure	Sharing of expertise on resource efficiency	
9 The patchwork global economy		Ability to attract FDI; G-2-G interest in connectivity agenda	
10 Geostrategic concerns	Alignment of infrastructure with national priorities		Need for MPAC 2025 to be seen as relevant to ASEAN population

4

VISION, OBJECTIVES AND INITIATIVES FOR ASEAN CONNECTIVITY 2025

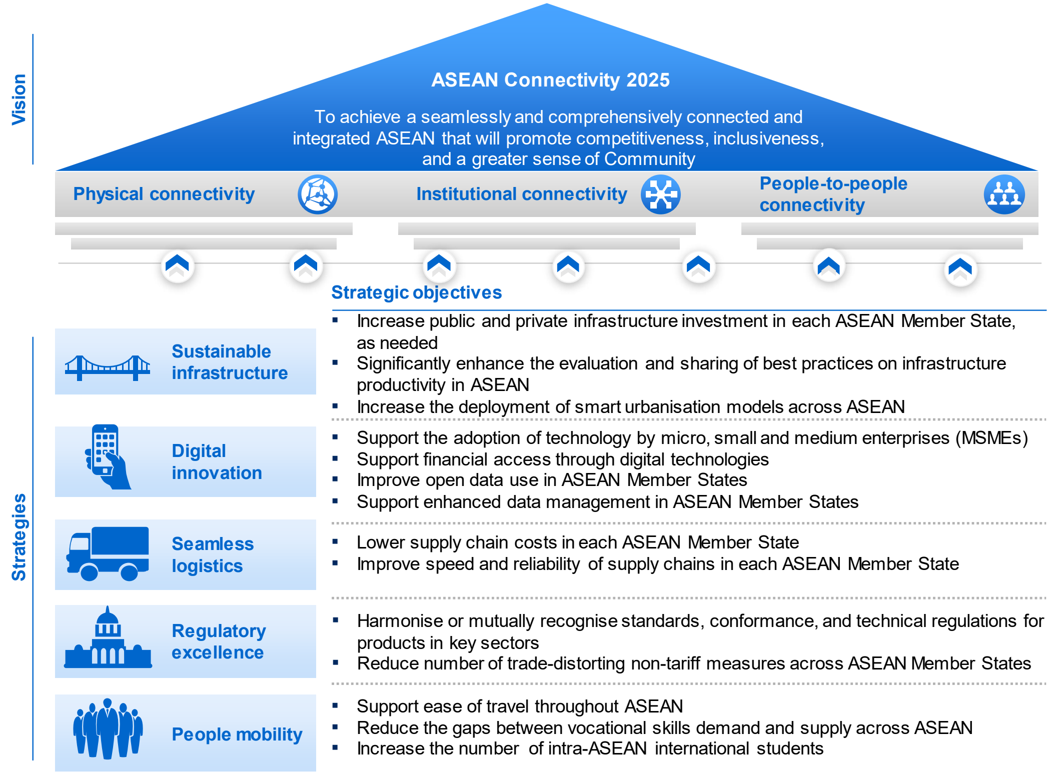
Chapter 4

Vision, Objectives and Initiatives for ASEAN Connectivity 2025

1. The vision for ASEAN Connectivity 2025 is to *achieve a seamlessly and comprehensively connected and integrated ASEAN that will promote competitiveness, inclusiveness, and a greater sense of Community* (Exhibit 6). Greater connectivity is the foundational supportive and facilitative means to achieving the political-security, economic, and socio-cultural pillars of an integrated ASEAN Community.

EXHIBIT 6

Vision and strategic objectives



Vision

ASEAN Connectivity 2025

To achieve a seamlessly and comprehensively connected and integrated ASEAN that will promote competitiveness, inclusiveness, and a greater sense of Community

Physical connectivity | **Institutional connectivity** | **People-to-people connectivity**

Strategies

	Strategic objectives
Sustainable infrastructure	▪ Increase public and private infrastructure investment in each ASEAN Member State, as needed ▪ Significantly enhance the evaluation and sharing of best practices on infrastructure productivity in ASEAN ▪ Increase the deployment of smart urbanisation models across ASEAN
Digital innovation	▪ Support the adoption of technology by micro, small and medium enterprises (MSMEs) ▪ Support financial access through digital technologies ▪ Improve open data use in ASEAN Member States ▪ Support enhanced data management in ASEAN Member States
Seamless logistics	▪ Lower supply chain costs in each ASEAN Member State ▪ Improve speed and reliability of supply chains in each ASEAN Member State
Regulatory excellence	▪ Harmonise or mutually recognise standards, conformance, and technical regulations for products in key sectors ▪ Reduce number of trade-distorting non-tariff measures across ASEAN Member States
People mobility	▪ Support ease of travel throughout ASEAN ▪ Reduce the gaps between vocational skills demand and supply across ASEAN ▪ Increase the number of intra-ASEAN international students

2. The following criteria were used to prioritise strategies to support the articulated vision statement:

   i. **Significance.** The strategic areas must have the potential to have material impact on the connectivity agenda in ASEAN. In other words, it must be critical to achieving the vision and goals outlined for ASEAN Connectivity.

ii. **Complementarity.** The strategic areas relates to opportunities to complement other ASEAN sectoral work plans. This could include issues that span multiple sector working groups, which may not be adequately addressed by any existing group (e.g., infrastructure financing).

iii. **Relevance.** The strategic areas must be within the scope of the connectivity agenda, including being regional in nature.

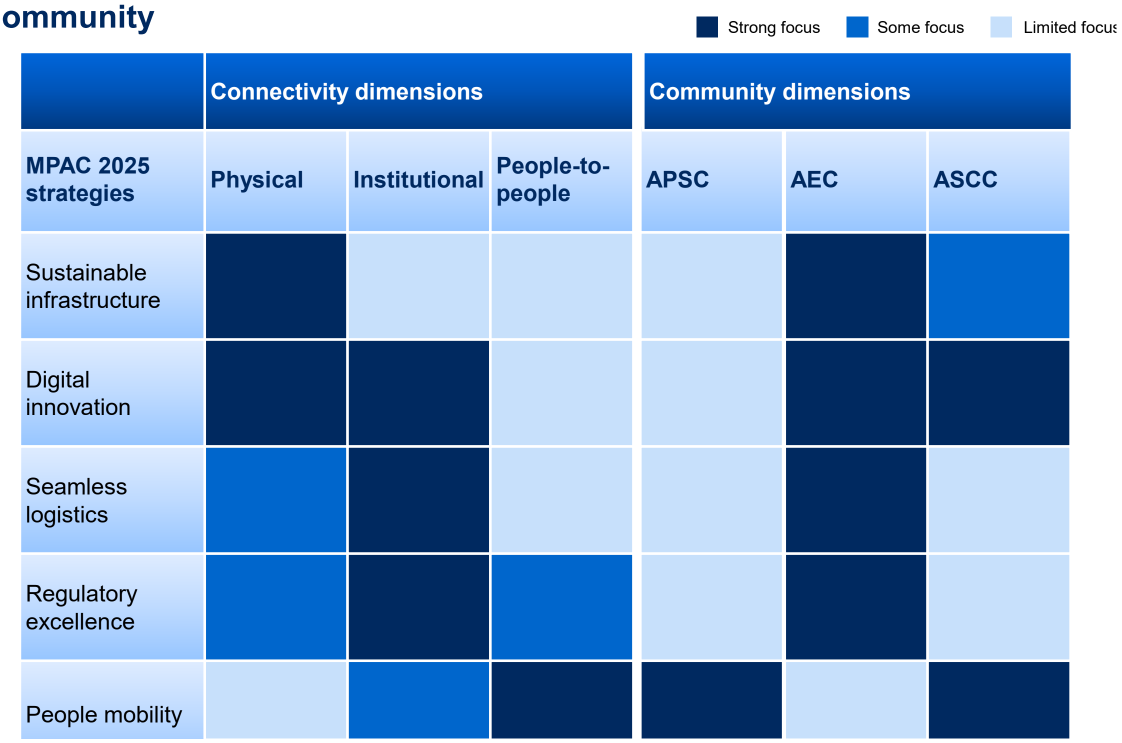
iv. **Timeliness.** The strategic areas must have the potential to achieve demonstrable impact over the 2016-2025 period.

3. Based on these criteria and consultations with government officials of ASEAN Member States, Dialogue Partners, academics, multilateral institutions, business associations, private sector representatives and other relevant stakeholders, the following five strategic areas have been prioritised for MPAC 2025: sustainable infrastructure, digital innovation, seamless logistics, regulatory excellence, and people mobility.

4. The five strategic areas cover and support different ASEAN Connectivity dimensions and ASEAN Community pillars (Exhibit 7). In particular, there is strong coverage of the physical and institutional dimensions; as well as significant alignment with the ASEAN Community priorities.

EXHIBIT 7

MPAC 2025 covers different dimensions of connectivity and the ASEAN Community



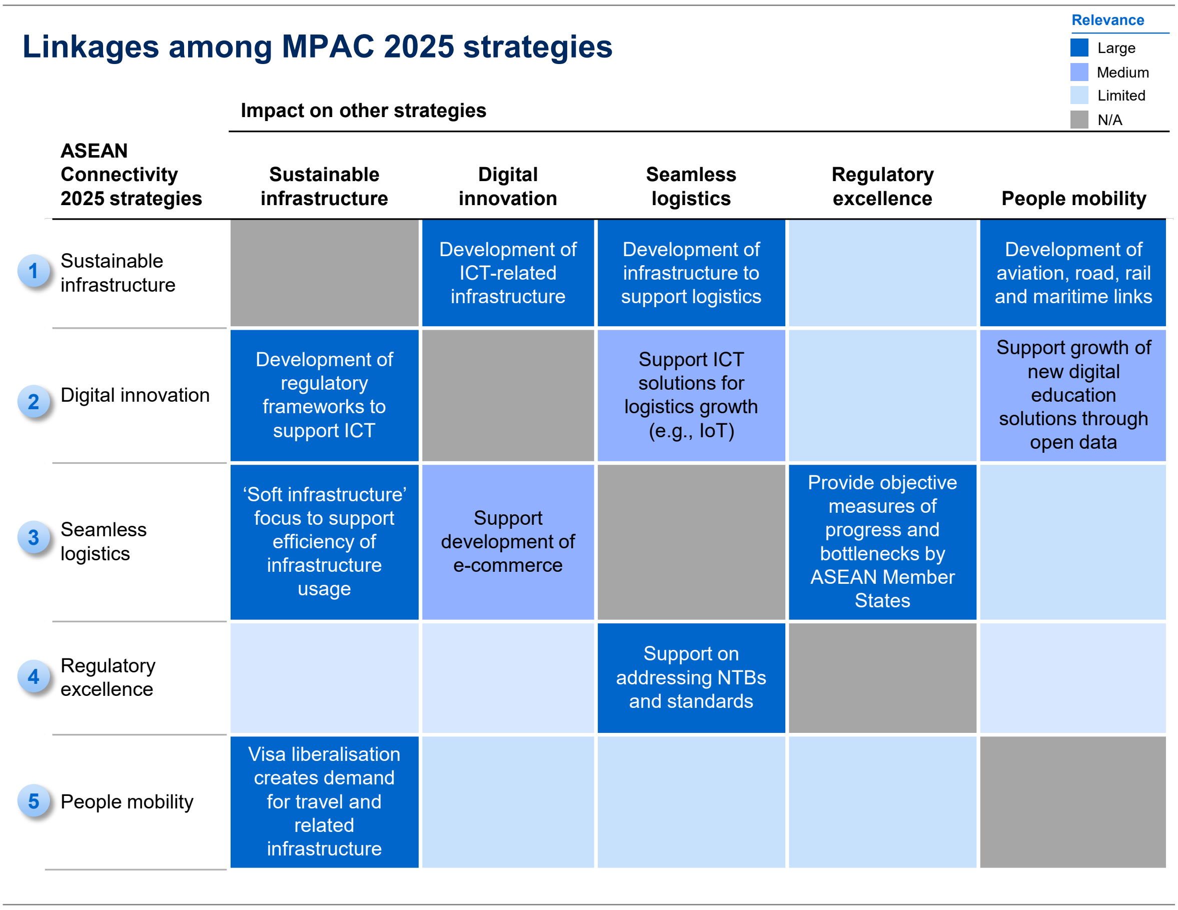
■ Strong focus ▨ Some focus □ Limited focus

	Connectivity dimensions			Community dimensions		
MPAC 2025 strategies	**Physical**	**Institutional**	**People-to-people**	**APSC**	**AEC**	**ASCC**
Sustainable infrastructure	■	□	□	□	■	▨
Digital innovation	■	■	□	□	■	■
Seamless logistics	▨	■	□	□	■	□
Regulatory excellence	▨	■	▨	□	■	□
People mobility	□	▨	■	■	□	■

A. INTERACTIONS BETWEEN THE PRIORITISED STRATEGIES

5. Each of the five strategies relates to different aspects of the three dimensions of ASEAN Connectivity (i.e., physical, institutional, and people-to-people connectivity) to reflect the comprehensiveness of the ASEAN Connectivity agenda. In addition, they are mutually reinforcing. For example, the "regulatory excellence" strategy supports harmonisation of standards and addressing non-tariff barriers, which can help promote logistics. Similarly, the development of infrastructure will support logistics and people mobility; and the support for visa facilitation (under "people mobility") will create demand for infrastructure. The full set of linkages between strategies is described in Exhibit 8.

EXHIBIT 8



Linkages among MPAC 2025 strategies

Relevance
🟦 Large
▨ Medium
☐ Limited
■ N/A

Impact on other strategies

ASEAN Connectivity 2025 strategies	**Sustainable infrastructure**	**Digital innovation**	**Seamless logistics**	**Regulatory excellence**	**People mobility**
1 Sustainable infrastructure	■	Development of ICT-related infrastructure	Development of infrastructure to support logistics	☐	Development of aviation, road, rail and maritime links
2 Digital innovation	Development of regulatory frameworks to support ICT	■	Support ICT solutions for logistics growth (e.g., IoT)	☐	Support growth of new digital education solutions through open data
3 Seamless logistics	'Soft infrastructure' focus to support efficiency of infrastructure usage	Support development of e-commerce	■	Provide objective measures of progress and bottlenecks by ASEAN Member States	☐
4 Regulatory excellence	☐	☐	Support on addressing NTBs and standards	■	☐
5 People mobility	Visa liberalisation creates demand for travel and related infrastructure	☐	☐	☐	■

B. THE VALUE CONTRIBUTION OF MPAC 2025 TO EXISTING ASEAN SECTORAL WORK PLANS

6. As discussed in the introduction, MPAC 2025 seeks to add value by complementing and synergising the ASEAN Community Blueprints 2025, ASEAN sectoral work plans, and the Initiative for ASEAN Integration (IAI)

Work Plan III, as well as enhancing synergies with other sub-regional and inter-regional frameworks, in five ways:

i. **Additionality**. MPAC 2025 creates new initiatives (not in the ASEAN sectoral work plans) that are considered crucial for improving physical, institutional, or people-to-people connectivity.

ii. **Breadth.** MPAC 2025 expands the coverage of initiatives in existing ASEAN sectoral work plans so that they include the areas identified to be important from a connectivity perspective.

iii. **Coordination**. MPAC 2025 helps ensure effective coordination of initiatives that cut across multiple working groups to maximise the likelihood of successful implementation.

iv. **Depth**. For those initiatives that are considered important for connectivity, MPAC 2025 aims to maximise the likelihood of successful implementation by helping to add detail to the initiatives and outlining how to deal with potential barriers to success.

v. **Emphasis**. For initiatives that are considered important for connectivity, and for which a clear action plan is already in place, MPAC 2025 seeks to highlight the importance of these initiatives.

7. Across the 15 initiatives in MPAC 2025, the main channel by which ASEAN Connectivity adds value to existing ASEAN sectoral work plans is through enhanced coordination across working groups, but also through adding additional depth to existing ASEAN sectoral work plans (Exhibit 9).

EXHIBIT 9

Majority of proposed initiatives add value through enhanced coordination between existing ASEAN sectoral initiatives

⬛ Strong focus
🟦 Some focus
⬜ Limited focus

		Area of value				
	MPAC 2025 initiatives	**Additionality**	**Breadth**	**Coordination**	**Depth**	**Emphasis**
Sustainable infrastructure	Establish a rolling priority pipeline list of potential ASEAN infrastructure projects and sources of funds	⬛	⬜	🟦	⬜	⬜
	Establish an ASEAN platform to measure and improve infrastructure productivity	🟦	⬜	⬛	🟦	⬜
	Launch sustainable urbanisation strategies in ASEAN cities	⬜	⬜	⬛	🟦	⬜
Digital innovation	Enhance the MSME technology platform	⬜	⬜	⬛	🟦	⬜
	Develop the ASEAN digital financial inclusion framework	⬜	⬜	⬛	🟦	⬜
	Establish an ASEAN open data network	⬜	🟦	⬛	🟦	⬜
	Establish an ASEAN digital data governance framework	⬜	⬜	⬛	🟦	⬜
Seamless logistics	Strengthen ASEAN competitiveness through enhanced trade routes and logistics	⬜	🟦	⬛	🟦	⬜
	Enhance supply chain efficiency through addressing key chokepoints	⬜	⬜	⬛	🟦	⬜
Regulatory excellence	Complete harmonisation of standards, mutual recognition, and technical regulations in three prioritised product groupings	⬜	⬜	⬛	🟦	🟦
	Increase transparency and strengthen evaluation to reduce trade-distorting non-tariff measures	⬜	🟦	⬛	🟦	🟦
People mobility	Enhance ASEAN travel by making finding information easier	⬜	⬜	⬛	🟦	⬜
	Ease ASEAN travel by facilitating visa processes	⬜	⬜	⬛	🟦	⬜
	Establish new vocational training programmes and common qualifications across ASEAN Member States, in accordance with national circumstances of each ASEAN Member State	⬜	⬜	⬛	🟦	⬜
	Support higher education exchange across ASEAN Member States	⬜	⬜	⬛	🟦	⬜

I. SUSTAINABLE INFRASTRUCTURE

8. More than US$110 billion needs to be invested in infrastructure annually in ASEAN in order to meet the needs of the ASEAN Member States[30]. This is roughly two to six times the annual amount spent historically. Not only does expenditure need to increase, but the productivity of the infrastructure itself needs to improve rapidly; at the same time new approaches to dealing with the growth of middleweight cities in ASEAN need to be implemented to ensure that their growth does not come at the expense of the environment or quality

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[30] *ASEAN Investment Report 2015* and McKinsey Global Institute's *Southeast Asia at the Crossroads: Three Paths to Prosperity* (2014) estimated infrastructure investment needs amounting to USD 110 billion (for the period of 2015-2025) and USD 196 billion (for the period of 2014-2030), respectively.

of life. The strategic objectives and initiatives for sustainable infrastructure are outlined in Exhibit 10.

EXHIBIT 10

Sustainable infrastructure

What are the strategic objectives?

1 Increase public and private infrastructure investment in each ASEAN Member State, as needed

2 Significantly enhance the evaluation and sharing of best practices on infrastructure productivity in ASEAN

3 Increase the deployment of smart urbanisation models across ASEAN

What are the key initiatives?

1 Establish a rolling priority pipeline list of potential ASEAN infrastructure projects and sources of funds

2 Establish an ASEAN platform to measure and improve infrastructure productivity

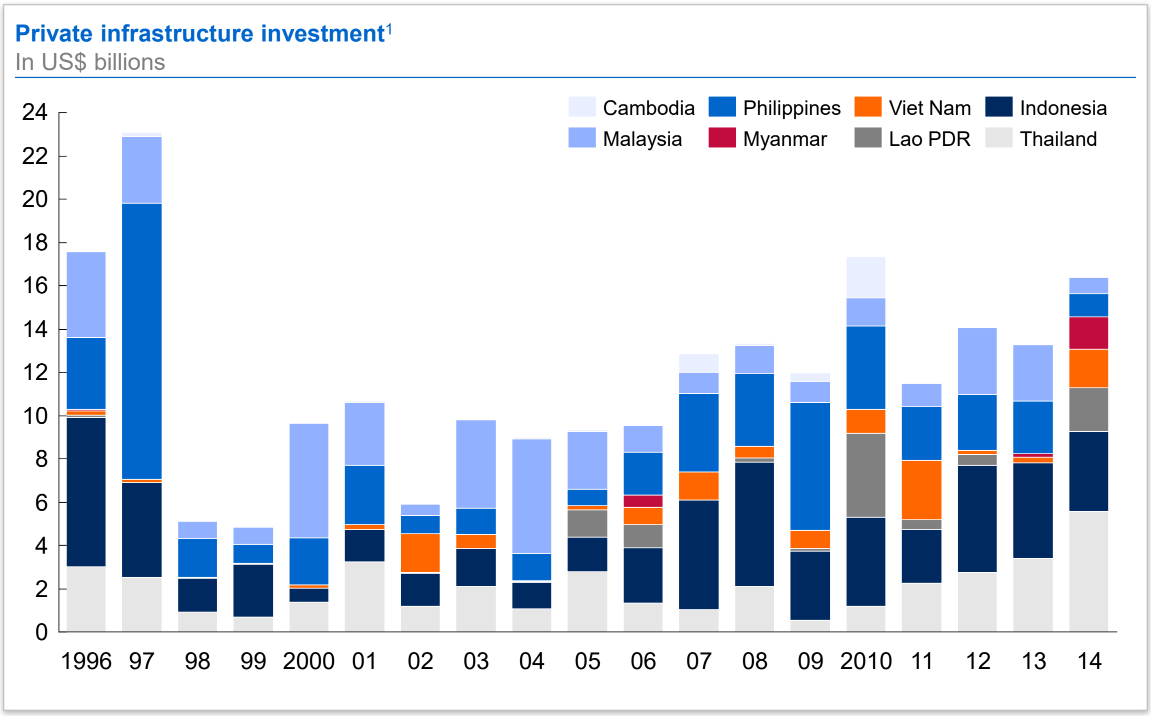
3 Develop sustainable urbanisation strategies in ASEAN cities

Strategic Objectives:

9. *Increase public and private infrastructure investment in each ASEAN Member State, as needed*. Following the Asia Financial Crisis of 1997–98, a significant infrastructure deficit emerged as ASEAN Member States sought to rein in current account deficits and capital account flows. As a result, investment as a share of GDP has not returned to pre-1997 levels in most ASEAN economies. Although both private and government infrastructure investment have been ramping up in recent years, given the scale of infrastructure needs across ASEAN, there remains a large challenge ahead. A minimum aspiration could be for private sector infrastructure spending to surpass pre-Asia Financial Crisis levels (Exhibit 11).

EXHIBIT 11

After experiencing a significant fall following the Asia Financial Crisis, private infrastructure investment has slowly increased



1 Data unavailable for Singapore and Brunei Darussalam.
SOURCE: World Bank Private Participation in Infrastructure Database

9. *Significantly enhance the evaluation and sharing of best practices on infrastructure productivity in ASEAN.* Past academic work has found opportunities for reducing the cost of infrastructure by around 40 percent through better project selection, more efficient delivery and greater accountability, an emphasis on maximising the life span and capacity of existing assets, strong infrastructure governance, and a robust financing framework.[31] ASEAN Member States vary widely on their performance in relation to these different elements, suggesting opportunities to improve productivity through greater sharing of relevant best practices.[32] As part of the proposed initiatives in this area, a new assessment framework and a platform will be established to measure infrastructure productivity and share best practices in ASEAN Member States

10. *Increase the deployment of smart urbanisation models across ASEAN.* The growth of cities across ASEAN is generating economic momentum—but it also poses enormous challenges. Although income and prosperity are rising, many of the region's cities are struggling with quality-of-life issues. Some of the region's largest cities are feeling the strains of rapid population growth, which

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[31] *Infrastructure productivity: How to save $1 trillion a year*, McKinsey Global Institute, January 2013.

[32] *Southeast Asia at the crossroads: Three paths to prosperity*, McKinsey Global Institute, November 2014.

has led to traffic congestion, pollution, and other urban issues. The objective is to enhance the rate of deployment of sustainable urbanisation strategies, particularly in the growing middleweight cities in ASEAN. To measure progress against this ambition, it would be essential to work on sustainability measures for a range of cities across ASEAN.

Initiatives to Achieve Strategic Objectives

Initiative 1: Establish a Rolling Priority Pipeline List of Potential ASEAN Infrastructure Projects and Sources of Funds.

11. The *ASEAN Community Blueprints 2025* and the *ASEAN Strategic Transport Plan 2016-2025* have called for the publishing of an ASEAN database of sustainable transport initiatives. Whilst there are some organisations like Project Finance International (PFI) and IJGlobal that have data on infrastructure projects in the region, this information only covers later-stage projects that have gone through full project preparation (and so does not include projects in an early stage of development).

12. The aim of this initiative is to address both the information issues and the capability gaps associated with developing a strong infrastructure pipeline in ASEAN Member States. The first step in the process is to establish criteria for selection on whether an infrastructure project has regional relevance for ASEAN. This could relate to the importance of the project in supporting cross-border trade and people movements, for example. This analysis could incorporate the work, where relevant, undertaken in the ASEAN PPP Program and the Comprehensive Asia Development Plan (CADP) 2.0 by the World Bank and the Economic Research Institute for ASEAN and East Asia (ERIA), respectively.

13. A standardised template will be used to gather information on these projects, with support for ASEAN Member States to help them complete this information-gathering process. The information to be collected via the standardised template could draw on the existing information in the templates developed by the International Infrastructure Support System (IISS). The full set of projects could then be included in a publicly available online database to allow easy access to investors and other stakeholders. The Global Infrastructure Hub (GIH) is currently developing a global list of infrastructure projects and there is the opportunity for ASEAN to build on this work by using common classification systems.

14. Once identified, a feasibility study (including cost-benefit analysis) will be conducted to understand the opportunity for financing, including private sector participation. Capability building and technical support will be necessary to help ASEAN Member States conduct this analysis. These short-listed projects

will then be refined further to develop the basic business case, with additional information on project size, potential project returns, and other key metrics. Finally, these projects will be showcased at an annual investor forum that brings relevant parties (e.g., investors, government officials, multilateral institutions) together to help test investor interest and support deal making. These projects could then potentially flow through into later-stage development with the input of PPP units and other relevant agencies in the ASEAN Member States.

15. The online database will also provide information on various funding sources that could be used to help finance these projects, to reflect the concerns of many ASEAN Member States that there has been a lack of information on available funding sources. Bank loans dominate private infrastructure finance. However, traditional bank lenders globally are reducing their participation in project finance syndications in response to the new Basel III capital adequacy requirements.[33] Despite rapid growth, domestic capital markets also currently provide limited opportunities to source project finance for infrastructure projects, particularly outside Singapore, Thailand, and Malaysia. There is significant scope for development of listed and unlisted investment instruments, of project finance and of PPPs.[34] Institutional investors, such as large pension funds and sovereign wealth funds, could also provide significant sources of funds in ASEAN. In addition, as described in the previous chapter on future trends, there are a range of existing and emerging funding vehicles such as the Asia Bond Fund (ABF); the Asian Bond Market Initiative (ABMI); the ASEAN Infrastructure Fund (AIF); the Asian Infrastructure Investment Bank (AIIB); the New Development Bank (NDB) and the expanded Partnership for Quality Infrastructure (PQI). The database will be refreshed at frequent intervals to support timely information.

Initiative 2: Establish an ASEAN Platform to Measure and Improve Infrastructure Productivity.

16. This initiative aims to conduct a diagnostic on overall infrastructure productivity and identify opportunities to improve the planning, delivery, and operation of infrastructure. These insights will eventually be codified and a platform will be established to share lessons for ASEAN Member States and track progress over time.

17. This methodology could build on the work of other institutions in this area, such as the Global Infrastructure Hub (GIH). Once the framework is agreed, a set of projects could be analysed in each ASEAN Member State to gather data on their relative performance across different elements of the infrastructure delivery process, including aspects such as land acquisition, technical support,

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[33] Fauziah Zen and Michael Regan, *Financing ASEAN Connectivity*, ERIA, 2014.

[34] *Infrastructure Investment, Private Finance, and Institutional Investors: Asia from a Global Perspective*, ADBI Working Paper Series, January 2016.

etc. This information could then be used to convene a forum of infrastructure officials from ASEAN Member State to share best practices in these areas, and then continue to track performance over time to understand the degree to which progress has been made.

Initiative 3: Develop Sustainable Urbanisation Strategies in ASEAN Cities.

18. This initiative aims to scale up the sharing of smart urbanisation models across cities in ASEAN Member States. While there are many useful international case studies addressing sustainability concerns associated with urbanisation, the most useful insights for ASEAN are likely to come from within the region itself. There are many examples of smart urbanisation from across ASEAN, including George Town's heritage-protection strategy, Medan's efforts to reduce dependency on cars and investing in making the city more pedestrian-friendly, and Da Nang's efforts to strengthen institutional capacity and manage corruption. Despite the efforts of institutions like Singapore's Centre for Liveable Cities (CLC), the IMT-GT Green Cities initiative, and the ASEAN-German Technical Cooperation Programme on Cities, Environment and Transport, there are still limited networks for sharing such lessons on sustainable urbanisation models and a lack of robust data to assess performance.

19. Reflecting this concern, the *ASEAN Strategic Transport Plan 2016-2025* has called for enhanced sharing and adoption of experiences, projects, and knowledge related to sustainable transport. There is the opportunity for MPAC 2025 to support this by working with existing ASEAN institutions and multilateral organisations to scale up the sharing of smart urbanisation models in transport as well as in other relevant areas. The initial step will be to take stock of the existing programmes in operation across ASEAN and in sub-regional arrangements, as well as existing data sources (e.g., the Asia Competitiveness Institute urbanisation index). An assessment framework for understanding performance on different elements of sustainable urbanisation could then be developed by building on past work in this area. Cities in ASEAN could then be engaged to participate in the network, which would include participating in the assessment, as well as forums for city leaders to share lessons learnt. As part of this initiative, a smart transport initiative, linked to public transport and non-motorised transport, will be launched across ASEAN cities. A critical role for MPAC 2025 will be to ensure effective coordination of different sector programmes in this effort.

II. DIGITAL INNOVATION

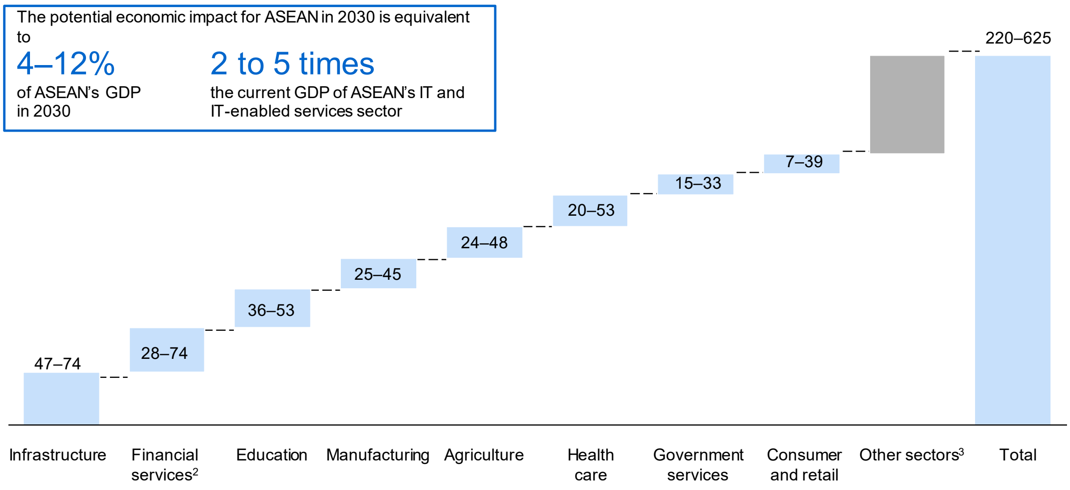
20. Disruptive technologies (particularly mobile Internet, big data, cloud technology, the Internet of Things, the automation of knowledge work and the SMAC) could unleash some US$220 billion to US$625 billion in annual economic impact in ASEAN by 2030 (Exhibit 12). The strategic objectives and initiatives for digital innovation are outlined in Exhibit 13.

EXHIBIT 12

Disruptive technologies have significant potential across key sectors in ASEAN

Potential annual economic impact in ASEAN[1]

US$ billion, 2030



The potential economic impact for ASEAN in 2030 is equivalent to

4–12% of ASEAN's GDP in 2030

2 to 5 times the current GDP of ASEAN's IT and IT-enabled services sector

1 These estimates do not represent GDP or market size (revenue), but rather economic potential, including consumer surplus.
2 Includes US$17 billion to US$52 billion of sector-related impact from sector-related effects such as greater financial inclusion.
3 Additional sectors represent 25–30 percent of ASEAN's total GDP. Impact estimate based on top-down estimate of disruptive technologies.

SOURCE: McKinsey Global Institute

EXHIBIT 13

Digital innovation

What are the strategic objectives?

1 Support the adoption of technology by micro, small and medium enterprises (MSMEs)

2 Support financial access through digital technologies

3 Improve open data use in ASEAN Member States

4 Support enhanced data management in ASEAN Member States

What are the key initiatives?

1 Enhance the MSME technology platform

2 Develop the ASEAN digital financial inclusion framework

3 Establish an ASEAN open data network

4 Establish an ASEAN digital data governance framework

Strategic Objectives

21. *Support the adoption of technology by micro, small and medium enterprises (MSMEs).* While the number of Internet users has grown at a brisk 16 percent annually from 2008 to 2013, a large proportion of businesses in ASEAN still lag in terms of technology readiness and usage (see Exhibit 14). There are opportunities for enabling MSMEs to fully adopt digital technologies through addressing key barriers that prevent them to do so, such as awareness of potential benefits, technology capability, ease of adoption, access to finance, and availability of different solutions and platforms. MSMEs' adoption of digital technologies will allow them to achieve significant uplift in productivity, efficiency, and market expansion within the region.

22. *Support financial access through digital technologies.* A large share of the ASEAN population remains unbanked. The opportunity exists to significantly increase financial access by leveraging digital technologies. However, capturing this opportunity may require creating an enabling policy and regulatory environment that allows digital financial inclusion to flourish, which include developing new banking requirements and addressing a number of barriers, that may affect the uptake of mobile banking services (for instance, data infrastructure, regulations requiring customers to visit a branch to open accounts) as well as risks consideration.

23. *Improve open data use in ASEAN Member States.* Open data—machine-readable information, which may include government and private sector data, that is made publicly available to others—has generated a great deal of excitement around the world for its potential to empower peoples, change how government works, and improve the delivery of public services. At a global level, open data can help unlock US$3 trillion to US$5 trillion in economic value annually across seven sectors.[35] ASEAN Member States are at different levels of maturity in terms of data production as well as open data development, which suggests a large potential for further growth (Exhibit 15). The focus of MPAC 2025 is on government-level open data.

24. *Support enhanced data management in ASEAN Member States.* Data management (predominantly company and individual level data), including issues relating to data privacy, data analysis and interpretation, data storage, and cross-border data transfers, has a significant implication on the development of businesses in ASEAN. Progress varies considerably among ASEAN Member States in this area and there is a significant opportunity to improve transparency and accountability on requirements and identify areas to enhance performance.

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[35] *Open data: Unlocking innovation and performance with liquid information*, McKinsey Global Institute, October 2013.

EXHIBIT 14

Member States vary in their technology “readiness” and “usage”

Selected indicators from the Networked Readiness Index 2016[1]

Ranking ■ 1–10 ■ 11–25 ■ 26–50 ■ 51+

		Readiness[2]		**Usage**[3]			
Overall rank	**Country**	**Infra-structure**	**Affordability**	**Skills**	**Individual**	**Business**[5]	**Government**
1	Singapore	15	72	**1**	12	14	**1**
31	Malaysia	71	91	46	47	26	**6**
45	Brunei Darussalam[4]	37	129	30	50	56	30
62	Thailand	67	64	73	64	51	69
73	Indonesia	105	38	65	92	34	65
77	Philippines	87	107	54	79	36	63
79	Viet Nam	121	**3**	82	85	81	61
104	Lao PDR	108	82	106	124	89	110
109	Cambodia	98	43	120	101	104	116
133	Myanmar	115	122	113	131	138	137

[1] The Networked Readiness Index includes four sub-indexes: Environment, Readiness, Usage, and Impact.

[2] The Readiness sub-index measures the degree to which a society is prepared to make good use of an affordable ICT infrastructure and digital content.

[3] The Usage sub-index assesses the individual efforts of the main social agents to increase their capacity to use ICT as well as their actual use in day-to-day activities.

[4] Data as of 2014; Brunei Darussalam did not participate in 2015 and 2016 survey.

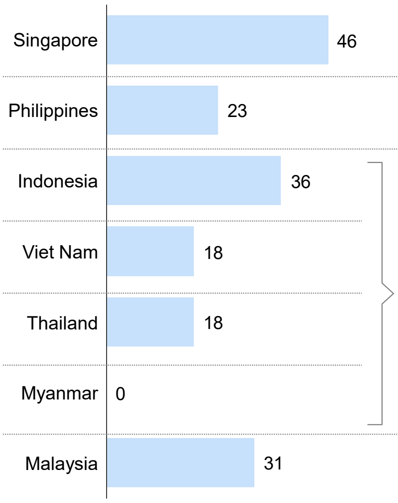
[5] Includes 1) Firm-level technology absorption; 2) Capacity for innovation; 3) PCT patent applications per million population; 4) Business-to-business Internet use; 5) Business-to-consumer Internet use; 6) Extent of staff training. Data is from the World Economic Forum's Executive Opinion Survey (~14,000 executives from over 140 countries).

SOURCE: *The global information technology report 2016*, World Economic Forum

EXHIBIT 15

The state of open data across ASEAN varies, with most countries facing challenges in establishing sustainable practices due to limited capacity

Open Data Barometer Score[1], 2014
Index score 0–100 (best practice)



Country cluster categories
Analysis of readiness and impact in terms of engagement with open data

High capacity: Strong established open data policies. Extended a culture of open data beyond a single government department. Government, civil society and private sector have capacity to benefit from open data.

Emerging & advancing: Innovating the delivery of open data policy. Face challenges before open data is mainstreamed across government and institutionalised as a sustainable practice.

Capacity constrained: Challenges in establishing sustainable open data initiatives. Limited government, civil society or private sector capacity, limits on affordable widespread Internet access, and weakness in digital data collection and management.

One-sided initiatives: Have some form of open data initiative but government action to publish datasets is not matched by civil society capacity nor private sector involvement in the process. Supply-side driven.

[1] The Open Data Barometer provides a snapshot of the state of open data around the world. 86 countries are assessed via expert survey, technical assessment of data supply, and secondary data. Countries are scored on: A) Readiness to secure benefits from open data, B) Implementation: measured through the availability of data across key categories, C) Impacts: measured through media and academic mentions of data use and impact.

SOURCE: Open Data Barometer, World Wide Web Foundation, January 2015

Initiatives to Achieve Strategic Objectives

Initiative 4: Enhance the MSME Technology Platform.

25. This initiative will support the plan of the ASEAN Coordinating Committee on MSMEs (ACCMSME) to promote key technology usage and its application to business by detailing the steps required to achieve the strategic objective. Additionally, MPAC 2025 will enhance coordination among different stakeholders to achieve this initiative, including: ACCMSME, ASEAN Telecommunications Senior Officials Meeting (TELSOM), business associations and councils, and others.

26. To ensure that MSMEs in ASEAN leverage digital technologies and encourage their adoption among MSMEs, a first step will be to address the current lack of understanding on barriers to digital adoption for MSME in the region. A survey will be conducted among MSMEs in each Member State to gain a deeper understanding of the current situation in relation to digital adoption, as well as the key barriers preventing adoption. This survey will also examine the current approaches being used in each ASEAN Member State to support digital adoption by MSMEs. A forum will be established for government officials in the MSME and ICT space to understand the current barriers and share lessons on successful interventions currently being used in ASEAN.

27. A key component for addressing digital adoption will be to strengthen the existing ASEAN SME service portal by responding to the insights from the MSME survey, as well as developing a digital technology platform which draws on best practices offerings from within and outside ASEAN. Potential areas of opportunity for the portal include building functionality on business networking—enabling MSMEs to connect and do business with technology vendors across the region—and including more materials on maximising the benefits of digital adoption by drawing on the work of existing business councils and private-sector players.

Initiative 5: Develop the ASEAN Digital Financial Inclusion Framework.

28. This initiative aims to promote financial inclusion by delivering financial products and services to a wider community that is currently under-served, including MSMEs. It also seeks to promote the ASEAN ICT Master Plan 2020, which, among others, seeks to raise awareness of digital trade and use of electronic payment among businesses so that they can better transact with suppliers and customers, including online consumer protection. MPAC 2025 aims to enhance coordination among different stakeholders in this area and provide further support on the detailed approach that could be adopted by the Working Committee on Financial Inclusion (WC-FINC) and Working Committee on Payment Systems and Settlement (WC-PSS).

29. A large proportion of the ASEAN population remains unbanked. However, there is an opportunity to significantly increase financial access through digital technologies, although realising this potential will require the development of supportive regulatory frameworks. This initiative starts with developing a framework outlining the different components of a successful digital financial inclusion scheme, drawing on existing frameworks, recommendations, and expertise. The proposed framework should take into account the readiness of digital financial inclusion infrastructure in respective ASEAN Member States. Components for this framework could cover initiatives that encourage the development of backbone infrastructure (such as biometrics, access-to-income proof, digital records), regulatory support (for instance, openness of regulations for new financial-services players, consumer protection for digital financial services), and usage enhancement (for example, government e-invoicing and online payments of taxes or welfare programmes, incentives for businesses to adopt e-payment).

30. Together with the framework, a mechanism to measure the readiness of digital financial inclusion in ASEAN could be constructed to allow for assessment and monitoring of progress. The framework will then be used to map current actions and the regulatory environment of each ASEAN Member State, and to understand performance.

31. In line with its mandate, WC-FINC will focus on building capabilities and technical knowledge of ASEAN Member States in enhancing digital financial inclusion infrastructure at the national level. WC-FINC will continuously support and facilitate experience sharing amongst ASEAN Member States to accelerate learning on digital financial inclusion, and will also reach out to relevant international partners e.g. World Bank for technical assistance in this area.

Initiative 6: Establish an ASEAN Open Data Network.

32. This initiative builds on the ASEAN ICT Master Plan 2020, which has identified a number of potential actions for supporting open data and big-data development from different sources, including awareness building and education in standards, usage, and development especially ICT infrastructure to support the statistical analysis. Proposed actions include: establishing a forum or platform for the private sector to share developments and activities in big-data management and analysis; developing guides for standardising the type and standards for machine-readable open data; and supporting open data development through hosting of competitions where innovative uses and application of open government data are encouraged (e.g. a hackathon). MPAC 2025 will support the ASEAN ICT Master Plan 2020 to achieve its objective of open data by expanding the impact beyond the private sector to government, as well as by enhancing cross-sectoral coordination between TELSOM and other ASEAN Sectoral Bodies.

33. There are opportunities to enhance the development of data production and open data in ASEAN to support more-efficient government delivery and private-sector innovation. To encourage data production and open data, the initial step is to define the scope of open data as well as to enhance transparency of data sets and official statistics availability by sector. This can be achieved by mapping data production framework as well as open-data development and readiness across ASEAN and creating an “ASEAN data dictionary” as an online publicly available source; this would include available data sets and details of the data (such as collection and calculation methodology, frequency of collection, fields, responsible agencies, software platform).

34. Once the current availability of data has been established, a government open-data forum could be held to share results from across ASEAN Member States and to identify potential improvement areas. Participants could include government officials not just from telecommunications, but also other key sectors with a stake in open data usage such as health and education. The forum could be used to identify areas (or sectors) where open data would have the greatest economic impact. This information could then be used by ASEAN Member States to help prioritise their efforts on open data (while also taking into consideration the sensitivity of the data). Data standards could also be developed and aligned among ASEAN Member States, which would allow for a consistent approach to data collection, data coverage, and data storage.

Initiative 7: Establish an ASEAN Digital Data Governance Framework.

35. This initiative aims to support The ASEAN ICT Master Plan 2020, which calls for creating a coherent and comprehensive framework for personal data protection, by enhancing coordination across many sectors and providing details on the approach to ensure success.

36. To progress towards transparency in data privacy and cross-border data sharing, the aim of this initiative is to enhance the data management frameworks in ASEAN. The initial step in achieving this objective is to establish transparency by mapping out data-management approaches and requirements by all ASEAN Member States with reference to international best practices. A forum could then be established to share lessons on opportunities for ASEAN Member States to make progress and to explore areas of possible harmonisation, culminating in an ASEAN digital data governance framework.

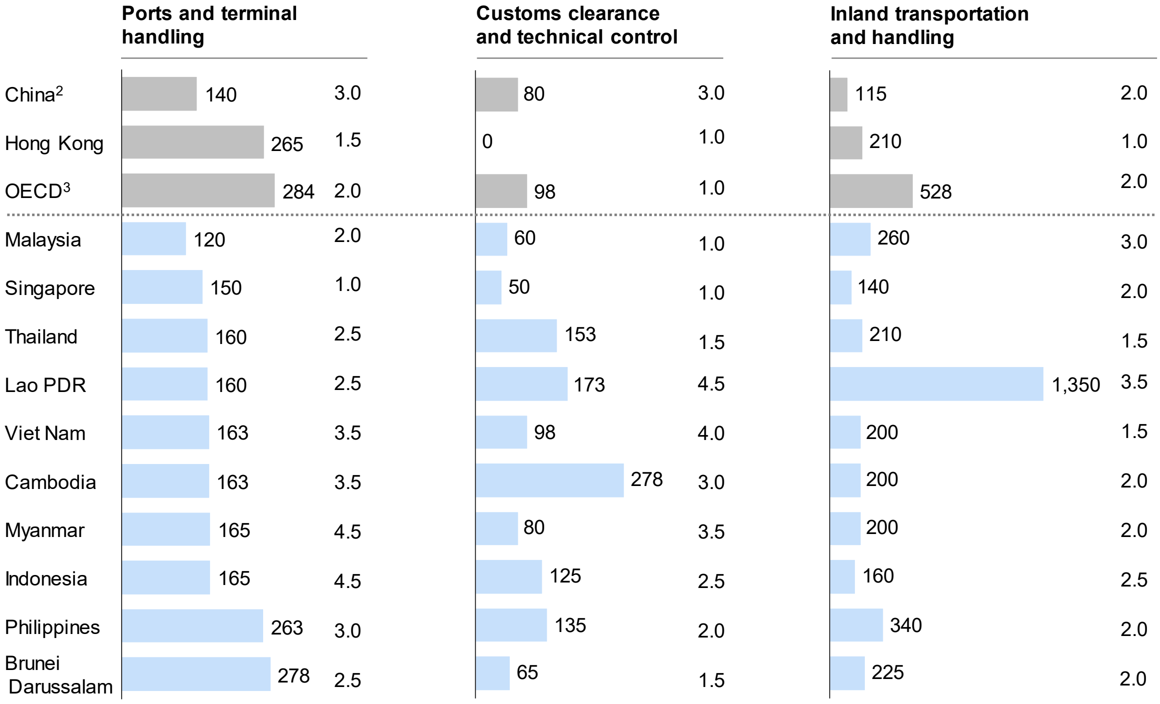
III. SEAMLESS LOGISTICS

37. The region's customs and logistics costs remain far higher than international benchmarks[36] (Exhibit 16). Improving logistics competitiveness will be crucial if ASEAN is to maintain its recent strong manufacturing growth as wages rise across the region. The strategic objectives and initiatives for seamless logistics are outlined in Exhibit 17.

EXHIBIT 16

ASEAN's logistics networks are competitive on speed but are often more expensive than China

Cost, 2015 (US$); days[1]



1 All cost and days units are an average of import and export; 2 Includes only Shanghai; 3 Average of 34 OECD countries.

SOURCE: World Bank Doing Business Survey 2015

Strategic Objectives

38. *Lower supply chain costs in each ASEAN Member State.* At present, there are large divergences among ASEAN Member States across different areas of logistics, including green logistics. The aim is to lower logistics costs by drawing on appropriate metrics for trading across borders.

39. *Improve speed and reliability of supply chains in each ASEAN Member State:* Similar to the cost of logistics, the speed and reliability of logistics in terms

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[36] According to McKinsey Global Institute Study on *Myanmar's Moment: Unique Opportunities, Major Challenges*, as of 2013, it costs about US$2,000 to ship a container from the Myanmar - Thai border to Yangon, for example, but only US$500 to ship a similar container from the Myanmar - Thai border to Bangkok, a substantially longer distance.

of time spent in ports, customs, and inland transport need to be improved considerably by assessing various bottlenecks in the supply-chain process. Currently, ASEAN Members States' speed of logistics based on World Bank's metrics for trading across borders shows divergence in performance and they are well below global benchmarks (e.g. OECD average).

EXHIBIT 17

Seamless Logistics

What are the strategic objectives?

1 Lower supply chain costs in each ASEAN Member State

2 Improve speed and reliability of supply chains in each ASEAN Member State

What are the key initiatives?

1 Strengthen ASEAN competitiveness through enhanced trade routes and logistics

2 Enhance supply chain efficiency through addressing key chokepoints

Initiative 8: Strengthen ASEAN Competitiveness through Enhanced Trade Routes and Logistics.

40. This initiative aims to conduct an analysis of time and costs for different stages of priority trade routes in ASEAN in order to identify bottlenecks. There is a lack of detailed information on key logistic networks in ASEAN. For example, the World Bank Logistics Performance Index (LPI) has a country-specific focus (rather than regional focus) and lacks granularity on specific bottlenecks. The Japan External Trade Organization (JETRO) ASEAN Logistics Network map was an attempt to provide more granular information on seven priority trade routes in ASEAN, but has not been updated recently, or expanded to cover more of ASEAN's trade routes. The lack of detailed logistics information for ASEAN makes it difficult to identify specific bottlenecks and prioritise actions.

41. The ASEAN Economic Community Blueprint 2025 and the *ASEAN Strategic Transport Plan 2016-2025* have called for the construction of a database covering the ASEAN land transport network and conducting time release studies to measure the time required for the goods vehicles crossing the border. There is an opportunity for MPAC 2025 to support this by working with academic institutions, multilateral organisations, the private sector and Dialogue Partners to conduct an analysis of time and costs for different stages of the trade route

and identify bottlenecks. To establish the database, the first step is to identify the priority trade lanes or economic corridors to be analysed under the database. Priority commodities then need to be selected for monitoring. Selection criteria could include the relevance of the corridors and products for trade flows; the importance for the private sector; the relevance for multiple ASEAN Member States; and the coverage of both maritime and land corridors.

42. To ensure continuity in the development and updating of the database on a regular basis, identification of research partners will be an essential component of this initiative. As a step towards developing this database, the pilot ASEAN Custom Transit System project involving Malaysia, Singapore, and Thailand, as identified under the Senior Transport Officials Meeting (STOM) could be a starting point. This can then be used to inform priority reform areas over time. The information generated through the database could then be made widely available to the private sector, as well as the country logistics councils and national logistics industry associations, to inform decisions on how to clear bottlenecks in relation to various speed and cost issues.

Initiative 9: Enhance Supply Chain Efficiency through Addressing Key Chokepoints.

43. This initiative focuses on developing a supply chain framework, which will provide a holistic measure of supply chain performance in ASEAN. It would begin by identifying specific trade corridors (ideally matched to those selected for the logistics database initiative) in ASEAN and then understanding "chokepoints" in the supply chain processes related to these corridors, such as establishing a mechanism to support and implement border management measures, e.g. procedures of border management (customs, immigration, quarantine or CIQ), in managing cross-border movement of passengers and goods; procedures, formalities and practices in border management and its harmonisation to the extent possible; joint border management in pursuing "One Single Inspection and Processing Points". This should also take into account both business-to-business (B2B) and business-to-consumer (B2C) goods flow in light of the increasing importance of e-commerce trade in the region. The identification of chokepoints would be based on existing data sources (e.g. the World Bank's Logistics Performance Index (LPI)), as well as input from private sector and government officials.

44. An agreed action plan would then be developed with the logistics coordinating councils (or equivalent bodies) for each of the ASEAN Member States involved in the prioritised trade routes to tackle the identified chokepoints. A range of outcome and input indicators would then be established to track performance on these action plans. Initially, these outcome indicators would draw on existing data sources (e.g., the World Economic Forum's Enabling Trade Index (ETI)); but over time this would be replaced with more specific and granular information from the ASEAN logistics database (described above). The input indicators

would be developed to track progress on the specific initiatives developed in the corridor action plan. Forums would be organised, where key officials from the logistics coordinating councils (or other relevant bodies) would be invited, together with representatives from the private sector, to share lessons learnt during the process and share best practice.

45. *ASEAN Strategic Transport Plan 2016-2025* intends to establish a formal platform/cooperation mechanism for exchanging information on implementation of regional cross-border operations. Given the variety of different working groups engaged in logistics, MPAC 2025 can play a critical coordinating role to support implementation.

IV. REGULATORY EXCELLENCE

46. The recent review of ASEAN integration highlighted the need for effective institutional support and a participatory consultative mechanism for regulatory reform within the region. It was also highlighted that there exist gaps in the capabilities of translating the visions of ASEAN into practical implementation on the ground. This strategic area focuses on implementing good regulatory practice (GRP) in issues which are important to enhance ASEAN Connectivity. GRP outlines four stages of regulatory process for improvement: consultation, design, implementation, and review. In terms of specific regulatory areas, businesses in ASEAN highlight two key areas as priorities to be addressed: standards conformance and technical regulations; and non-tariff barriers to trade.[37] While tariffs have fallen quickly, other types of barriers are falling more slowly (Exhibit 18). The strategic objectives and initiatives for regulatory excellence are outlined in Exhibit 19.

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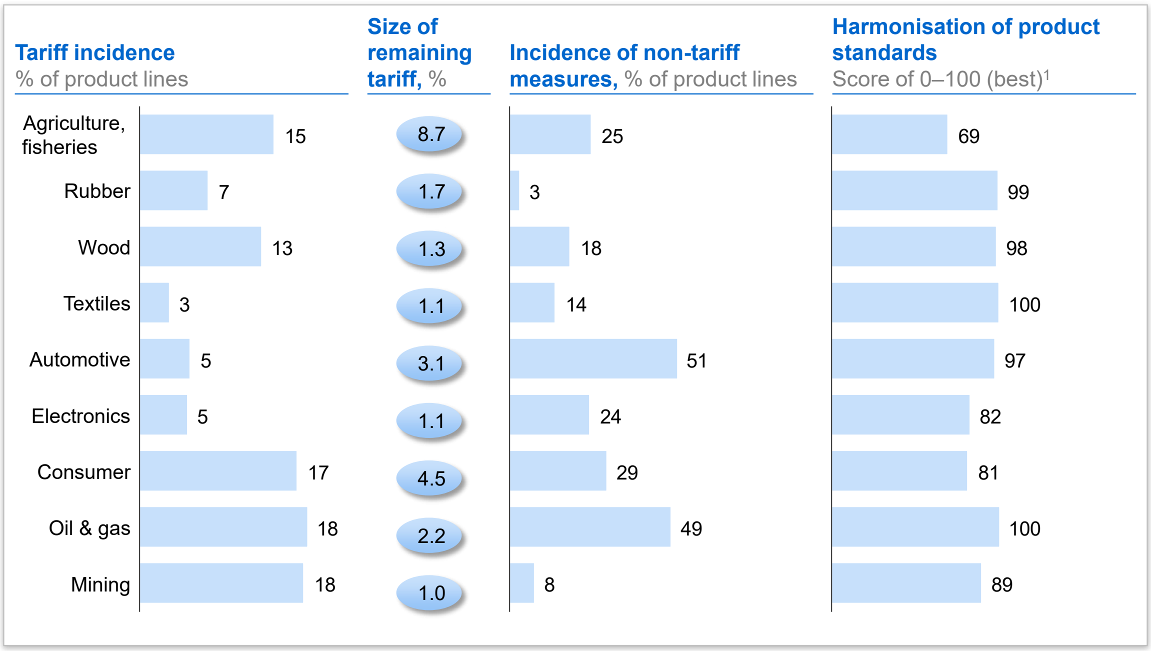
[37] *ASEAN Business Outlook Survey,* American Chamber of Commerce in Singapore, August 2015.

EXHIBIT 18

While tariffs have fallen, there is significant incidence of non-tariff measures across sectors and room to improve standards harmonisation



Note: Incidence of tariffs and non-tariff measures is based on average across ASEAN member states within each sector.

1 Assessed based on incidence of standards and technical regulations, and non-tariff measures. Benchmarked against Singapore which has the least of such measures.

SOURCE: ASEAN Secretariat

Strategic Objectives

47. *Harmonise or mutually recognise standards, conformance, and technical regulations for products in key sectors.* Standards, conformance, and technical regulations often lead to significant barriers to trade across borders. For example "Certification According to National Technical Regulations" is the most-frequently reported issue among cases of trade barriers in ASEAN.[38] Addressing these issues will directly ease movements of goods across the region, and with other international trade partners.

48. *Reduce number of trade-distorting non-tariff measures across ASEAN Member States.* While tariff barriers in ASEAN have undergone a significant reduction, over 2,000 non-tariff measures still remain.[39] Even though many of these are well-intentioned with regard to safety and environmental issues, some act against trade and regional integration. A survey of businesses has highlighted non-tariff barriers as the highest priority area to enhance regional economic integration.[40]

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[38] *Realising the Potential of ASEAN*, EU-ASEAN Business Council, 2015.

[39] Ibid.

[40] *ASEAN Business Outlook Survey*, AmCham and U.S. Chamber of Commerce, 2015.

EXHIBIT 19

Regulatory excellence

What are the strategic objectives?

1 Harmonise or mutually recognise standards, conformance, and technical regulations for products in key sectors

2 Reduce number of trade-distorting non-tariff measures across ASEAN Member States

What are the key initiatives?

1 Complete harmonisation of standards, mutual recognition, and technical regulations in three prioritised product groupings

2 Increase transparency and strengthen evaluation to reduce trade-distorting non-tariff measures

Initiatives to Achieve Strategic Objectives

Initiative 10: Complete Harmonisation of Standards, Mutual Recognition, and Technical Regulations in Three Prioritised Product Groupings.

49. This initiative builds upon the AEC Blueprint 2025, which touches on good regulatory practice in the preparation, adoption, and implementation of standards and conformance rules, regulations and procedures. MPAC 2025 aims to support the Blueprint by enhancing the coordination needed between the ASEAN Consultative Committee for Standards and Quality (ACCSQ), trade officials, and national regulators and by providing details on the approach to be adopted, as well as highlighting the importance of this issue.

50. STRACAP have been established to lead development in this area and there are potential opportunities to further enhance progress. The aim of this initiative is to create a mechanism to enhance coordination between trade officials, the ACCSQ, national regulators, and private sector representatives in order to work towards accelerating standards harmonisation, mutual recognition agreements (MRAs), and to address technical regulatory barriers.

51. The first step for this initiative is to prioritise three key sectors based on their importance to trade flows, degree of harmonisation to date, technical trade barriers, regulatory environment and relevance to the private sector. For the prioritised products, the next step is to obtain and build a fact base on international best practices for standards and technical regulations, potential benefits to ASEAN Member States and opportunities for addressing their

possible concerns. A forum will be held between trade officials, ACCSQ, and national regulators to share the results from this exercise. Key objectives for the forum are to communicate benefits, provide clarity on possible concerns, and align on actionable next-steps among all stakeholders to accelerate progress in the prioritised products. Once this approach has been successfully applied, stakeholders will be able to leverage key lessons as they target further products sequentially.

Initiative 11: Increase Transparency and Strengthen Evaluation to Reduce Trade-Distorting Non-Tariff Measures.

52. This initiative will support the AEC Blueprint 2025, which calls for accelerating work towards full elimination of non-tariff barriers. MPAC 2025 will assist in enhancing coordination and provide a detailed approach on next steps after the ASEAN Trade Repository (ATR) is completed, in order to accelerate ASEAN Member States' actions towards the goal of reducing trade-distorting non-tariff barriers.

53. As highlighted previously, the issue of non-tariff measures is a high priority within ASEAN. This initiative aims to address the issue by increasing transparency and strengthening the evaluation of non-tariff measures. ASEAN is currently working to operationalise the ATR, a comprehensive database which will consolidate the national trade repositories (NTRs) from all ASEAN Member States. ASSIST, which was launched at the 48th ASEAN Economic Ministers Meeting in August 2016, is aimed at encouraging participation from businesses and peoples in identifying non-tariff barriers to trade.

54. Going forward, ASEAN will continue to link ASEAN Member States' NTR to the ATR platform, as well as to engage in capacity building and awareness-creation programmes across ASEAN Member States. Once ASEAN has a comprehensive database of non-tariff measures, an exercise must be taken to prioritise trade-distorting measures for further action. As a first step in this prioritisation, a subset of the NTMs identified to be important for the private sector could be focused on, such as technical barriers to trade. A high-level panel will then be established to analyse measures based on their impact on trade versus benefits (for example, through price-based methods to estimate ad valorem equivalents, a price-gap approach between domestic and border prices, and computable general equilibrium models). The panel will prioritise NTMs based on their impact on trade, and the findings will be made publicly available through the ATR platform for ASEAN Member States to take further actions against the measures (for instance, through elimination, harmonisation, or simplification of measures). For the regulatory process of new NTMs or changes to existing NTMs, GRP should be applied, including mandatory private-sector consultation across product working groups and adoption of the 12 design principles for GRP.[41]

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[41] *ASEAN Good Regulatory Practice (GRP) Guide*, SEOM, 2009.

V. PEOPLE MOBILITY

55. Restrictions on travel for ASEAN nationals within the region are largely a thing of the past. However, there are still opportunities to improve mobility in ASEAN. Opportunities include facilitating travel throughout ASEAN by addressing the lack of information on travel options and providing simpler mechanisms to apply for necessary visas. Additionally, there is an opportunity to strengthen skills mobility in the region, and where appropriate, by establishing high-quality qualification frameworks in critical vocational occupations, and to encourage greater mobility of intra-ASEAN university students as well as bringing together ASEAN youth. The strategic objectives and initiatives for people mobility are outlined in Exhibit 20.

EXHIBIT 20

People mobility

What are the strategic objectives?

1 Support ease of travel throughout ASEAN

2 Reduce the gaps between vocational skills demand and supply across ASEAN

3 Increase the number of intra-ASEAN international students

What are the key initiatives?

1 Enhance ASEAN travel by making finding information easier

2 Ease ASEAN travel by facilitating visa processes

3 Establish new vocational training programmes and common qualifications across ASEAN Member States, in accordance with national circumstances of each ASEAN Member State

4 Support higher education exchange across ASEAN Member States

Strategic Objectives

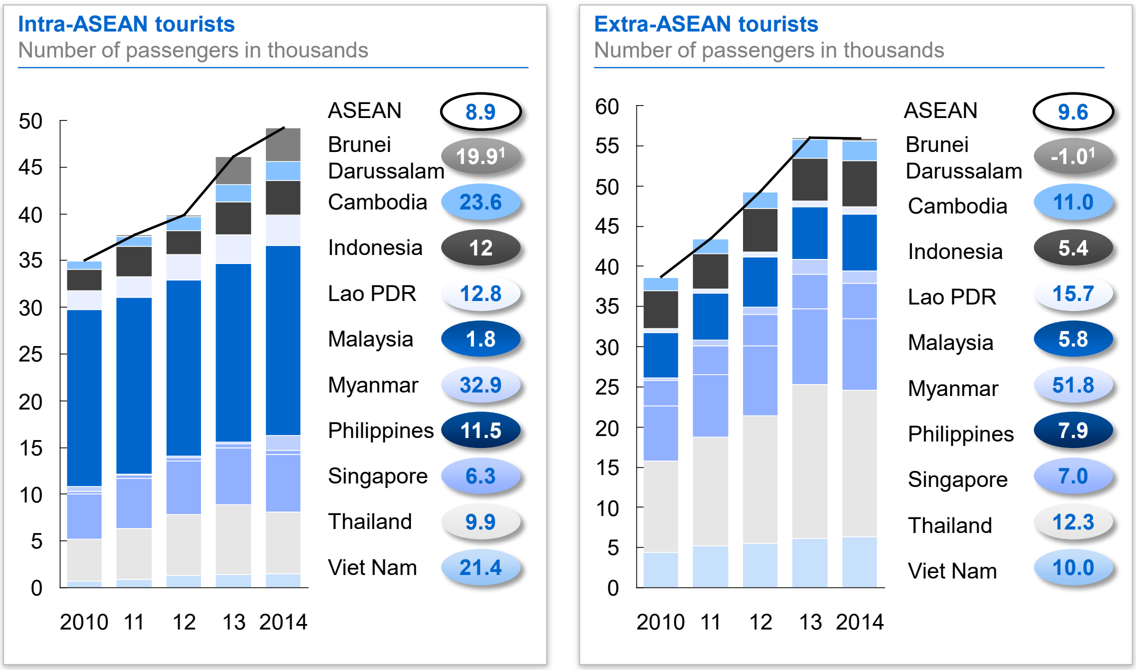
56. *Support ease of travel throughout ASEAN.* The number of tourists from outside ASEAN has been growing at 9.6 percent per annum since 2010 (Exhibit 21). If the current trend continues then ASEAN could expect 150 million tourists (from outside the region) in 2025. Capturing this growth will require enhancing ease of travel to and within the region, including visas and travel information.

57. *Reduce the gaps between vocational skills demand and supply across ASEAN.* Vocational skills will be critical to support the future growth of ASEAN Member States, but qualification frameworks are still in their infancy in many ASEAN Member States, and there is also a lack of private-sector engagement in many cases. Meeting the future demand for vocational skills in the region will require detailed understanding of supply-demand evolution, ensuring robust training programmes, and implementing skill, and where appropriate, qualification frameworks on a voluntary basis to support movement of skilled labour.

58. *Increase the number of intra-ASEAN international students.* Under the APEC Connectivity Blueprint there is a target of reaching one million intra-APEC students by 2020.[42] Establishing a similarly ambitious target in ASEAN is difficult because of a lack of robust data on student mobility. According to UNESCO's latest data, the overall number of ASEAN international students studying in other ASEAN Member States declined by an average of 8 percent over the period 2010–2012. Though this data has some gaps in terms of country reporting, it identifies a need to enhance student mobility within the region.

EXHIBIT 21

Intra-ASEAN tourism has grown at 8.9 percent since 2010, and extra-ASEAN tourism has grown slightly faster at 9.6 percent per annum



1 Prior to 2013, data for Brunei Darussalam only covers visitor arrivals by air transport.
SOURCE: ASEAN Secretariat

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[42] *APEC Connectivity Blueprint for 2015-2025*, Asia-Pacific Economic Cooperation (APEC), 2014.

Initiatives to Achieve Strategic Objectives

Initiative 12: Enhance ASEAN Travel by Making Finding Information Easier.

59. This initiative aims to make travel planning easier for travellers into the region. The main tool is to enhance the information provided through the ASEAN tourism website as a “one stop shop” to help travellers obtain all the accurate information required to plan a trip to the region. The first step is to review other international, regional and national websites to identify opportunities to strengthen the existing ASEAN tourism website, with a particular focus on more interactive content. One significant improvement would be to develop potential itineraries for tourists wishing to travel among multiple countries in the region, which includes specific details on different transport options between locations and relevant links for tourists wishing to purchase tickets.

60. Given the tourism campaign for 50 years of ASEAN in 2017, which also aims at launching extensive travel deals and promotions, this could be a good opportunity to develop this information. In addition, the ASEAN tourism website could be translated into multiple languages to reflect the background of the most common foreign visitors to ASEAN. Finally, in order to drive usage of the website, there will be an outreach effort to engage tourism operators and other tourism information providers.

Initiative 13: Ease ASEAN Travel by Facilitating Visa Processes.

61. This initiative aims to facilitate the visa process for visitors travelling into ASEAN by developing a one stop shop for e-visa applications. This would entail a staged approach and would start with having transparent and regular updates on the visa process for ASEAN Member States in a single place on the ASEAN tourism website. Over time, this could be developed into a one-stop application for visitors travelling into ASEAN. The portal would enable visitors to apply to all the countries they wish to travel to within ASEAN via one common form, although the right to grant the visa would remain with individual countries.

Initiative 14: Establish New Vocational Training Programmes and Common Qualifications across ASEAN Member States, in accordance with National Circumstances of each ASEAN Member State.

62. This initiative aims to develop high quality vocational training programmes, and common qualification frameworks on a voluntary basis, across ASEAN Member States. The ASEAN Work Plan on Education 2016–2020 has a particular focus on technical vocational education and training (TVET) and on exploring opportunities to enhance common qualifications across ASEAN Member States. This initiative focuses on providing support first by in-depth understanding of the vocational skills gap across ASEAN Member States.

The International Labour Organisation and Asian Development Bank[43] have conducted an initial study on vocational skills gaps in the region that could be a starting point for the assessment. It is also critical to understand what different ASEAN Member States are currently doing on training programmes for sector qualifications, and then map out priority sectors based on private-sector interest and long-term need for ASEAN Member States.

63. To develop this initiative, it is important to enlist private sector participation in developing and running the training programmes modelled on what has been achieved in other countries (for instance, the emergence programme in Morocco, where private sector automotive players including Renault spearheaded skills development in the country through the creation of the Renault Academy). A starting point in the development of these programmes is to identify a Member State that has already established qualifications and competencies training in a priority sector and then transfer these to other ASEAN Member States to participate on a voluntary basis. This approach can then be extended across a few priority sectors by identifying a lead ASEAN Member State and enough private sector interest to develop and roll out these programmes. A further step after equipping chosen sectors with a set of competencies and qualifications is to explore the harmonisation of TVET recognition requirements on a voluntary basis. MPAC 2025 could help coordinate the upscaling of TVET programmes between the education and labour sectors to ensure, where appropriate, there is a common set of competencies and qualifications across ASEAN Member States with adequate private sector participation.

Initiative 15: Support Higher Education Exchange across ASEAN Member States.

64. This initiative helps support the current initiative in the education plan which includes programmes that provide scholarships to university students to promote student exchange in ASEAN Member States. It is focused on ensuring proper coordination with other sector working groups and entities (e.g., Directors-General of Immigration Departments and Heads of Consular Affairs Divisions of the Ministries of Foreign Affairs (DGICM), ASEAN Community Statistical System Committee), which will be critical to this programme's ability to achieve significant scale.

65. This initiative is focused on enhancing student mobility across ASEAN Member States by addressing four gaps: information, awareness, regulatory, and incentives. Currently the student mobility data across ASEAN Member States has a number of gaps, including country coverage, lack of timely data, and a lack of granularity (for example, the data do not distinguish between credit-based courses, degree-based courses, and non-degree-based courses). As a first step it is crucial to have a detailed and accurate fact base of intra-ASEAN

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[43] *Managing integration for better jobs and shared prosperity*, ILO and ADB, 2014.

university student mobility. Additionally, there is a gap in the information for prospective participants on the benefits and opportunities available for student exchange within ASEAN Member States; this could be tackled by raising awareness through social media. There is also a need to understand and assess the various visas that are available for such student exchange programmes; this is an instance where DGICM could help facilitate student mobility by enhancing visa regulations.

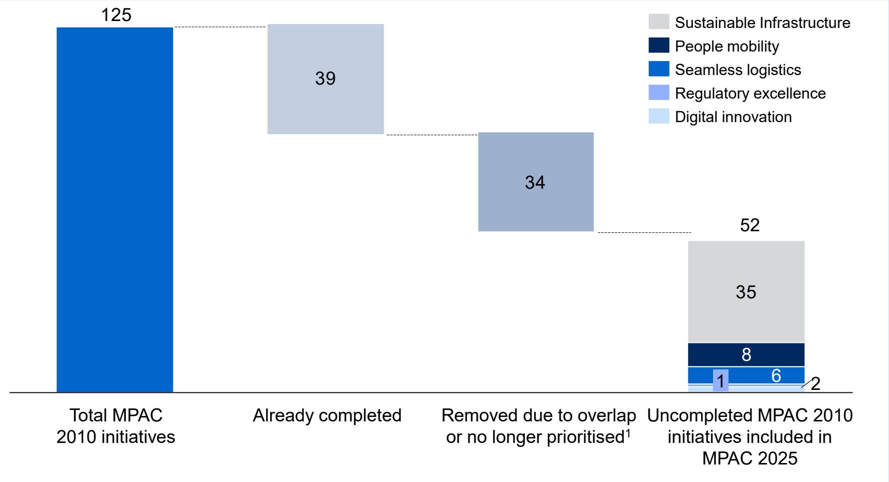
66. Finally, there is a need to ensure there are strong incentives for ASEAN students to study in other ASEAN Member States. A useful starting point would be to conduct a survey to understand current student perceptions and barriers. ASEAN could then explore how to ensure that intra-ASEAN university study is seen as valuable by students. This could be achieved by exploring options such as internship opportunities (e.g. internships with high-prestige firms could be organised as part of courses) and alumni networks that provide networking and other benefits to students.

C. REMAINING INITIATIVES FROM MPAC 2010

67. The remaining uncompleted initiatives in MPAC 2010 will be included in MPAC 2025 provided they have a clear sector owner (that is, the initiatives are included in the ASEAN sectoral work plans of the relevant ASEAN Sectoral Bodies), and that they do not overlap with newly proposed initiatives or other cross-sectoral plans, such as the IAI. In summary, 52 uncompleted initiatives from MPAC 2010 are to be included in MPAC 2025 (Exhibit 22). The full list of initiatives from MPAC 2010 to be included in MPAC 2025 can be found in **Appendix A**.

EXHIBIT 22

52 initiatives that are not yet completed in MPAC 2010 will be included in MPAC 2025



1 Initiatives that were removed for reasons including no longer being prioritised by the relevant implementing body; overlap with other cross-sectoral plans (e.g., Initiative for ASEAN Integration); and overlap with other initiatives in MPAC 2025.

SOURCE: ASEAN Secretariat

5

IMPLEMENTATION STRATEGY

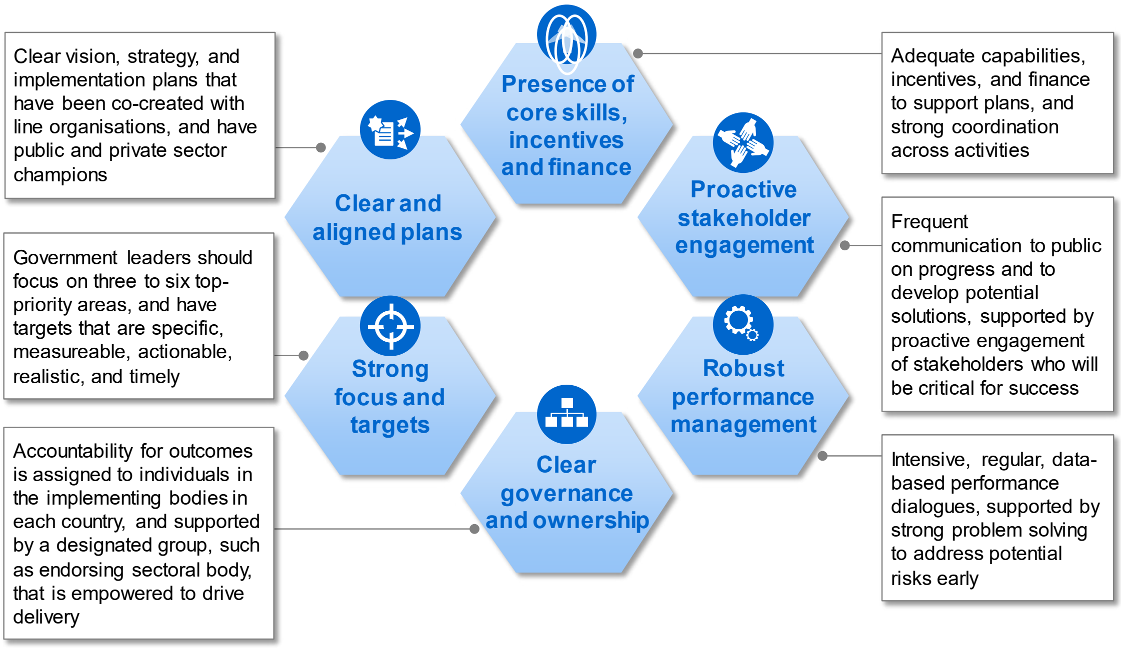
Chapter 5

Implementation Strategy

1. To ensure efficient and robust implementation of MPAC 2025, it will be vital to address six core areas that past academic research has found to be critical for effective government delivery (Exhibit 23).

EXHIBIT 23

Six dimensions will be crucial for the successful implementation of MPAC 2025



Clear vision, strategy, and implementation plans that have been co-created with line organisations, and have public and private sector champions

Government leaders should focus on three to six top-priority areas, and have targets that are specific, measureable, actionable, realistic, and timely

Accountability for outcomes is assigned to individuals in the implementing bodies in each country, and supported by a designated group, such as endorsing sectoral body, that is empowered to drive delivery

Adequate capabilities, incentives, and finance to support plans, and strong coordination across activities

Frequent communication to public on progress and to develop potential solutions, supported by proactive engagement of stakeholders who will be critical for success

Intensive, regular, data-based performance dialogues, supported by strong problem solving to address potential risks early

Dimension 1: Strong focus and targets.

2. Successful strategies typically have no more than three to six priority areas. Given resource constraints, it is important to focus on a small set of programmes that are prioritised for potential return and speed of implementation. MPAC 2025 has deliberately focused on just five strategies and 15 initiatives in order to maximise the likelihood of success.

3. Due to the diverse nature of the connectivity strategies and key initiatives, assessments of progress are inevitably performed at multiple levels of analysis. Progress in MPAC 2025 will be assessed at three levels: input, output, and outcome (Exhibit 24).

i. **Input metrics.** Input metrics capture progress on implementing measures related to each of the prioritised actions. For example, for the project on establishing a database of potential infrastructure projects, this could include measures such as creating the database structure, collecting sources of information, and publishing the data online. The advantage of these metrics is the progress can be measured accurately and they can be used to identify bottlenecks in progress.

ii. **Output metrics.** Output metrics relate to intended objectives of each prioritised initiative. The inputs will drive these outcomes. For example, this could include the publishing of an external, publicly available database on infrastructure activities or completion of project preparation support on the 40 high-potential PPP projects. They give insight into whether a specific initiative has been successfully completed.

iii. **Outcome metrics.** Outcome metrics relate to higher-level effects at the strategic-area level. The advantage of looking at the outcome level is that it captures the end objectives of the strategies (for example, increasing the rate of infrastructure development in ASEAN). The downside to these metrics is that they are also influenced by a number of factors outside the control of MPAC 2025 (e.g. economy-wide conditions) and are often not particularly timely (i.e. significant movement in these metrics is often not seen on a year-to-year basis). As such, MPAC 2025 will not place a hard target on these metrics, but rather use them as broad guidelines to assess progress.

EXHIBIT 24

MPAC 2025 has metrics at three levels to provide a holistic measure of progress

	Input level	Output level	Outcome level
Description	▪ Focus on metrics capturing progress on implementing measures related to initiatives	▪ Focus on metrics capturing progress on end objectives of each prioritised initiative	▪ Focus on metrics that capture the higher-level end objective in a strategic area
Examples of metrics	▪ Work with ASEAN Member States to identify national priority infrastructure projects ▪ Conduct feasibility analysis to determine potential for private sector participation	▪ Public database with all relevant infrastructure projects in ASEAN ▪ Launch of annual investor forum	▪ Infrastructure investment in ASEAN
Strengths	▪ Timely ▪ Specific ▪ Measurable ▪ Action-oriented	▪ Specific ▪ Focuses on end objective of specific action	▪ Focused on end objectives ▪ Relevant to stakeholders
Weaknesses	▪ Not focused on end objectives	▪ Sometimes not timely ▪ Often encounter measurement issues	▪ Not often timely ▪ Influenced by multiple factors

4. Given the relative advantages and disadvantages of each of these metrics, MPAC 2025 will consider the portfolio of input, output, and outcome metrics to provide a holistic perspective on progress. **Appendix B** provides a list of the indicative output and outcome metrics.

Dimension 2: Clear governance and ownership.

5. The presence of empowered leaders, who are held accountable for delivering results, is often a clear distinguishing factor between successful and unsuccessful implementations. Strong leaders consistently secure political backing and are thus empowered to take decisive action, put in place skilled teams, and create working environments in which their teams can execute their programmes successfully. There are opportunities to improve on this in the ASEAN Connectivity context. For example, in some instances there was rotation of the initial project leader to other government departments or their departure from government.

6. To support clear ownership, MPAC 2025 will have a clearly identified lead implementing sector, as well as have two ACCC representatives as co-facilitators for each strategic area. The remaining MPAC 2010 initiatives will be assigned to the relevant strategic area to ensure adequate oversight.[44] Their role will be to join progress reviews in each strategic area and to help ensure strong progress by highlighting and addressing bottlenecks that emerge. The review process is described in further detail later in this chapter. **Appendix C** provides an overview of the relevant ASEAN Sectoral Bodies and the lead implementing bodies in MPAC 2025.

Dimension 3: Clear and aligned plans.

7. It was found that there is the opportunity to improve on the consistency and clarity of the narrative on ASEAN Connectivity at different levels of government. The definition of connectivity was found to have varied significantly depending on individual roles of officials, and this affected the way the message on connectivity was being conveyed to external stakeholders.

8. MPAC 2010 has National Coordinators. However, their effectiveness is often limited by the fact that they are generally not in the implementing agencies or are involved in some of the initiatives. To ensure better coordination for MPAC 2025, National Focal Points will be identified at the initiative-line level in each ASEAN Member State. This will ensure that they are located within the relevant implementing agency, and therefore have greater leverage to increase

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[44] See Appendix A for further details on the specific allocation of MPAC 2010 strategies and initiatives to the ASEAN Connectivity 2025 strategic areas.

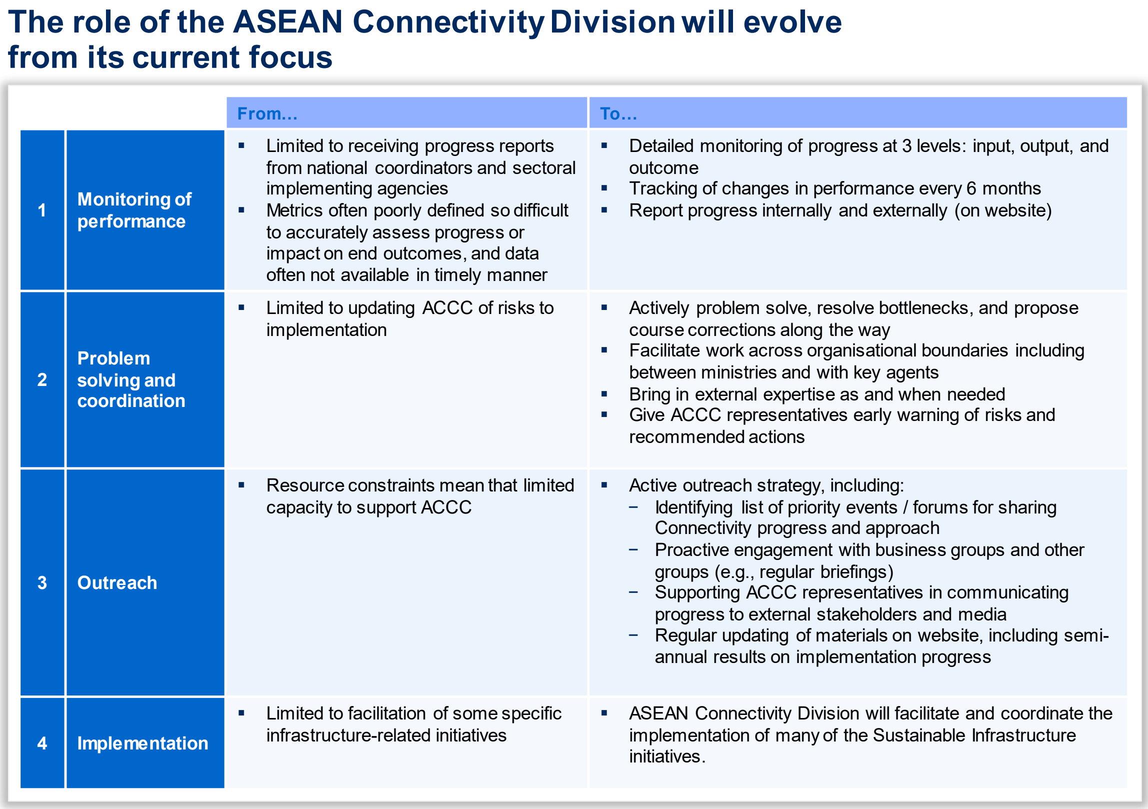
the speed of implementation. The National Focal Points will complement the existing work of the National Coordinators.

9. To deliver MPAC 2025, it is important for the initiatives to be clearly described during the implementation process. The work plan, which appears as **Appendix D**, describes the specific measures that will be taken, as well as identifies the lead implementing body, the stakeholders that will be involved, and the timelines. Appendix D may be updated and enhanced, as deemed necessary, by the ACCC, in consultation with the relevant ASEAN Sectoral Bodies.

Dimension 4: Presence of core skills, incentives and finance.

10. A high-functioning delivery system will have access to the critical skills it needs to execute its mission, with strong incentives to motivate performance, supported by access to necessary finance. The National Focal Points and relevant implementing agencies will be critical to the successful delivery of MPAC 2025. Capacity building activities will be conducted to maximise the likelihood of successful delivery of the MPAC 2025 initiatives. There is also a need to strengthen the ASEAN Connectivity Division at the ASEAN Secretariat (Exhibit 25).

EXHIBIT 25



The role of the ASEAN Connectivity Division will evolve from its current focus

		From...	To...
1	**Monitoring of performance**	▪ Limited to receiving progress reports from national coordinators and sectoral implementing agencies ▪ Metrics often poorly defined so difficult to accurately assess progress or impact on end outcomes, and data often not available in timely manner	▪ Detailed monitoring of progress at 3 levels: input, output, and outcome ▪ Tracking of changes in performance every 6 months ▪ Report progress internally and externally (on website)
2	**Problem solving and coordination**	▪ Limited to updating ACCC of risks to implementation	▪ Actively problem solve, resolve bottlenecks, and propose course corrections along the way ▪ Facilitate work across organisational boundaries including between ministries and with key agents ▪ Bring in external expertise as and when needed ▪ Give ACCC representatives early warning of risks and recommended actions
3	**Outreach**	▪ Resource constraints mean that limited capacity to support ACCC	▪ Active outreach strategy, including: – Identifying list of priority events / forums for sharing Connectivity progress and approach – Proactive engagement with business groups and other groups (e.g., regular briefings) – Supporting ACCC representatives in communicating progress to external stakeholders and media – Regular updating of materials on website, including semi-annual results on implementation progress
4	**Implementation**	▪ Limited to facilitation of some specific infrastructure-related initiatives	▪ ASEAN Connectivity Division will facilitate and coordinate the implementation of many of the Sustainable Infrastructure initiatives.

Dimension 5: Proactive stakeholder engagement.

11. Proactive stakeholder engagement requires the cultivation of relationships that will be critical to the success of the programme, alongside regular communications about the delivery effort and associated priorities. A review of the MPAC 2010 communications strategy highlighted opportunities to make the ASEAN website more user friendly (and the opportunity to create a connectivity-focused website); to have more regular public updates on progress; to create a two-way dialogue with external stakeholders; to ensure there is a clear line of responsibility with the ASEAN Secretariat to coordinate communications; to do more proactive media outreach; to adopt targeted stakeholder engagement techniques; and to more rigorously measure communications performance (via metrics such as unique visitors to website and media mentions). Interviews with business leaders also highlighted the importance of having progress that is contextualised for them—in other words, not just showing overall progress on connectivity, but progress for their specific sector.

12. In order to address these concerns, a number of initiatives will be launched:

    i. Consistent with the ASEAN Community Blueprints 2025, establish a regular (e.g., semi-annual) consultative process with private sector entities (business associations and business councils) to update on progress of initiatives under the ASEAN Connectivity work plans.

    ii. Develop an ASEAN Connectivity website, which has clear description of vision, strategies, and regular updates on progress. Include contact person for questions/media requests.

    iii. Identify set of key conferences, ASEAN Member States forums, Dialogue Partner conferences, business roundtables, to have spokespeople for ASEAN Connectivity present.

    iv. Develop a video that can provide a simple and compelling overview of the ASEAN Connectivity 2025 vision and strategy.

    v. Closer integration with the ASEAN Communications Master Plan and its successor document to ensure ASEAN Connectivity messaging is included and to track outcomes.

Dimension 6: Robust performance management.

13. An impartial and rigorous performance-tracking system must be a data-driven, fact-based mechanism, with a regular cycle of updates. There must also be mechanisms to ensure problems are identified and raised early, and solved in order of priority.

14. In its earliest inception, the monitoring of the MPAC 2010 was a purely qualitative progress update based on expert appraisal, recording projects as “complete/ early achiever”, “on track”, “behind schedule”, or “yet to start”. While this offered a dashboard view of project status, the approach was unable to capture progress with respect to both outcomes and impacts, and lacked quantitative measurements that could be meaningfully compared over time. The World Bank has noted significant opportunities for improving data access, quality, and breadth to more accurately assess strategic performance and provide valuable contextual information.[45] The monitoring and evaluation mechanism could also be strengthened with more regular monitoring of progress and clear mechanisms established to deal with root causes of barriers to progress as they emerge. The monitoring and evaluation mechanism for MPAC 2025 would be developed and conducted in coordination with other monitoring and evaluation frameworks in ASEAN.

15. The proposed structure of interactions is outlined below (Exhibit 26), which includes:

    i. Semi-annual progress updates for each of the five strategic areas. These will include the ACCC leads, the ASEAN Secretariat, and the Chairs of the relevant ASEAN Sectoral Bodies.

    ii. Semi-annual reviews of overall progress on ASEAN Connectivity 2025, including monitoring of the outcome-level key performance indicators (KPIs). This will include the ACCC and the ASEAN Secretariat.

    iii. The mid-term and end of term reviews will be undertaken in 2020 and 2025, respectively, by the ACCC. In the course of the review and evaluation, ASEAN Member States are given the flexibility to update MPAC 2025.

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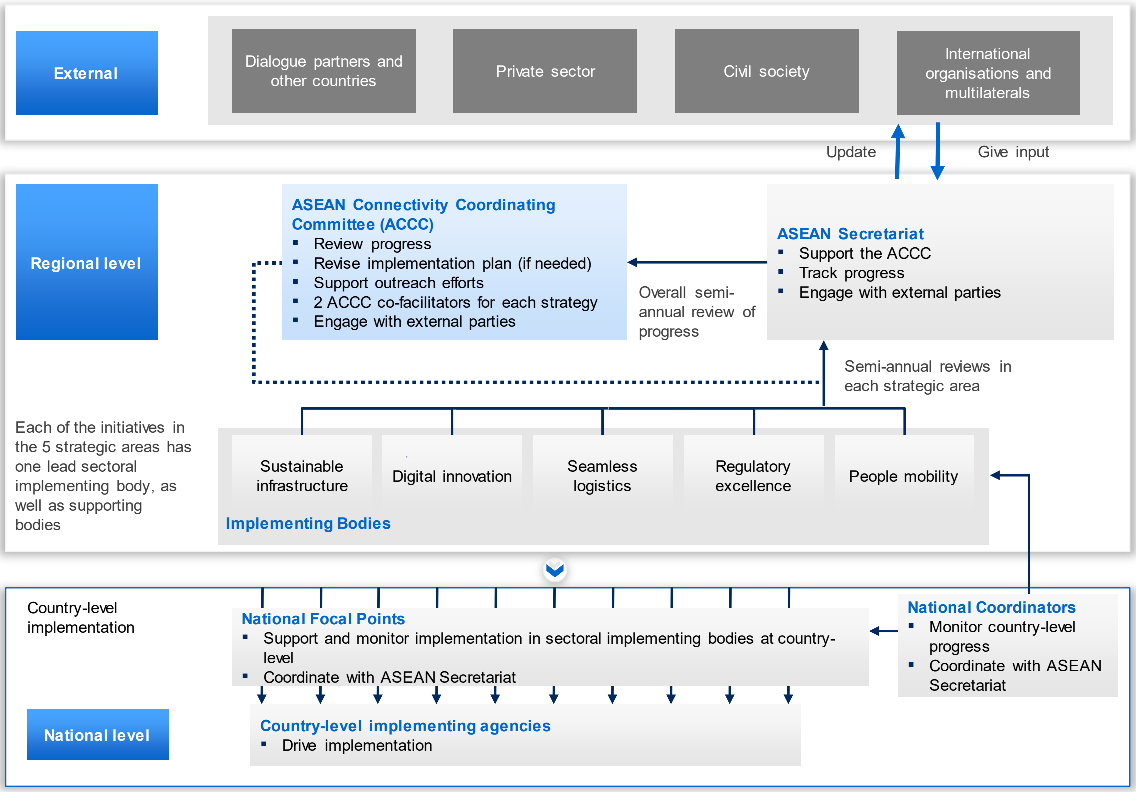
[45] *Enhancing ASEAN Connectivity Monitoring and Evaluation*, World Bank Group and ASEAN Secretariat, June 2015.

EXHIBIT 26

Monitoring, Review and Evaluation Structure of MPAC 2025



16. In terms of timing, the chart below gives a broad overview of the expected approach (Exhibit 27). Each initiative will consist of three phases of implementation:

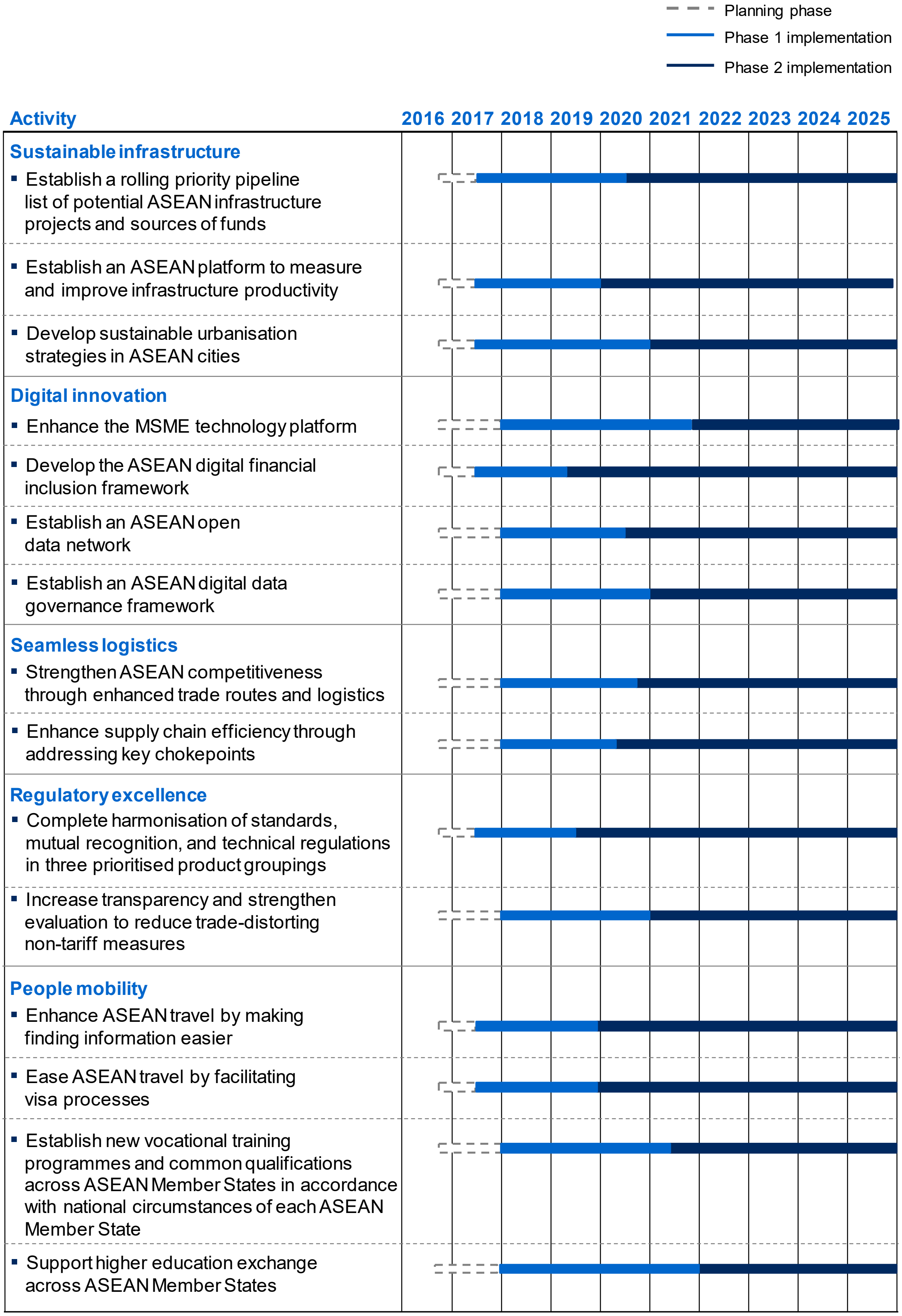
    i. **Planning Phase.** This is a preparatory phase, which enables the resource requirements to be addressed, as well as detailed coordination with the relevant implementing bodies.

    ii. **Phase 1 Implementation.** This phase will involve the initial implementation of the initiatives. The basic processes (including data gathering, design of capability building programmes, and launch of knowledge exchange platforms) will be conducted during this phase.

    iii. **Phase 2 Implementation.** This phase will involve the continued implementation of the initiatives to enable them to reach critical scale of impact. This will include broadening and deepening some of the initial processes established during Phase 1.

EXHIBIT 27

MPAC 2025 implementation timeline



Sustainable infrastructure

- Establish a rolling priority pipeline list of potential ASEAN infrastructure projects and sources of funds
- Establish an ASEAN platform to measure and improve infrastructure productivity
- Develop sustainable urbanisation strategies in ASEAN cities

Digital innovation

- Enhance the MSME technology platform
- Develop the ASEAN digital financial inclusion framework
- Establish an ASEAN open data network
- Establish an ASEAN digital data governance framework

Seamless logistics

- Strengthen ASEAN competitiveness through enhanced trade routes and logistics
- Enhance supply chain efficiency through addressing key chokepoints

Regulatory excellence

- Complete harmonisation of standards, mutual recognition, and technical regulations in three prioritised product groupings
- Increase transparency and strengthen evaluation to reduce trade-distorting non-tariff measures

People mobility

- Enhance ASEAN travel by making finding information easier
- Ease ASEAN travel by facilitating visa processes
- Establish new vocational training programmes and common qualifications across ASEAN Member States in accordance with national circumstances of each ASEAN Member State
- Support higher education exchange across ASEAN Member States

APPENDICES

APPENDIX A

Ongoing Efforts that will Continue from the Master Plan on ASEAN Connectivity 2010

Of the original 125 initiatives in MPAC 2010, 52 are currently not completed and will continue to be tracked in the MPAC 2025. These initiatives have been allocated to the 5 strategic areas highlighted below in line with the respective blueprints and sectoral work plans.

SUSTAINABLE INFRASTRUCTURE

Strategy	Initiative
Complete the ASEAN Highway Network (AHN)	▪ Myanmar: AH123 Dawei- Myittar (55.5 km); AH 123 Myittar-Thai Border (103.5 km) ▪ Lao PDR: AH12 Nateuy-Oudomxai-Luang Prabang-Vientiane (293 of 682 km) ▪ Myanmar: AH1 Tamu-Mandalay-Meiktila-Yangon-Bago-Payagyi-Thaton-Myawadi (229 of 1,557 km) ▪ Upgrade “Class II or III” sections with high traffic volume ▪ Lao PDR: AH15 Banlao-Nam Phao (98 km of 132 km) ▪ Myanmar: AH2 Meiktila-Loilem-Kyaing Tong-Tachilek (307 of 797 km) ▪ Complete the installation of common road signs and the route numbering system on all TTRs
Accomplish the Implementation of Singapore Kunming Rail Link (SKRL) project	▪ Cambodia: Phnom Penh-Tra Peang Sre (Cambodia/Viet Nam border) (255 km) ▪ Viet Nam: Loc Ninh (Cambodia/Viet Nam border)-Ho Chi Minh City (129 km) ▪ Develop implementation framework for seamless operation of SKRL: ▫ Identify and collect data for seamless operations of SKRL ▫ Adopt the Implementation Framework for seamless operation of SKRL ▪ Complete the Feasibility Study and/or detailed designs for the spur lines of SKRL - Viet Nam: Mu Gia-Tan Ap-Vung Ang (119 km) ▪ Complete the Feasibility Study and/or detailed designs for the spur lines of SKRL - Lao PDR: Vientiane-Thakhaek-Mu Gia (466 km) ▪ Conduct study on the possibility of extending the SKRL to Surabaya, Indonesia and develop an Action Plan on the Implementation of the Project, where possible ▪ Cambodia: Poipet-Sisophon (48 km) to be completed by end 2016 (funding from the Government of Cambodia)

Strategy	Initiative
Establish integrated and seamless multi-modal transport system	▪ Connect the Dawei Port ▪ Conduct feasibility study on the railway line linking Dawei Port (Myanmar) to Kanchanaburi (Thailand) ▪ Develop an effective network of ASEAN dry ports in accordance with existing ASEAN initiatives such as the AHN and SKRL ▪ Build the highway between Kanchanaburi and Dawei
Develop the ASEAN Single Aviation Market (ASAM)	▪ Review the MAFLAFS and their respective protocols and implementation as well as discuss further liberalisation of key economic elements, where necessary, under the ASEAN Single Aviation Market (ASAM) Implementation Framework (specific to ratification) ▪ Review the MAFLAFS and their respective protocols and implementation as well as discuss further liberalisation of key economic elements, where necessary, under the ASEAN Single Aviation Market (ASAM) Implementation Framework (specific to implement the approved recommendations) ▪ Review the MAAS, and their respective protocols and implementation as well as discuss further liberalisation of key economic elements, where necessary, under the ASEAN Single Aviation Market (ASAM) Implementation Framework ▪ Review the MAFLPAS, and their respective protocols and implementation as well as discuss further liberalisation of key economic elements, where necessary, under the ASEAN Single Aviation Market (ASAM) Implementation Framework ▪ Conclude Air Transport Agreement with India ▪ Conclude Air Transport Agreement with Republic of Korea (ROK) ▪ ASEAN Member States need to undertake continued discussion on the way forward and identify concrete steps to establish ASAM

Strategy	Initiative
Accomplish an integrated, efficient and competitive maritime transport system	▪ Conduct dialogue among the concerned ASEAN Member States for the preparation of RoRo routes operation ▫ Improve institutional arrangements (e.g. CIQ, road administrations) to enable smooth operationalisation of the RoRo route ▫ Improve port infrastructure and facilities at the implementing countries to increase efficiency in serving the RoRo routes ▪ Enhance the capacity of the 47 designated ports and review designated ports and implement projects to enhance their capacities ▪ Enhance the capacity of the 47 designated ports and review designated ports and implement projects to enhance their capacities (specifically including develop/upgrade terminal ports: Yangon, Da Nang) ▪ Establish a national coordinating body where applicable, to oversee the port and land transport infrastructure development which will work on a national master plan for port and land transport development for better port access
Establish an efficient and integrated inland waterways network	▪ Develop an efficient and integrated inland waterway transport (IWT) network ▫ Conduct a study and formulate a regional plan for developing IWT in ASEAN ▫ Implement the suggestions/projects proposed by the above Development Study
Prioritise the processes to resolve institutional issues in ASEAN energy infrastructure projects	▪ Harmonise regulatory frameworks and standards to facilitate regional energy connectivity ▪ Harmonise the technical, legal, and regulatory framework and identification of financial modality (currently being monitored by HAPUA) ▪ Enhance gas and Liquefied Natural Gas (LNG) connectivity via pipeline and regasification terminals ▪ Accelerate the development and completion of projects identified under APG by 2020 ▪ To accelerate the development and completion of projects identified under APG by 2020 (specifically the Melaka–Pekan Baru Interconnection (IMT-GT: Indonesia) project)

DIGITAL INNOVATION

Strategy	Initiative
Accelerate the development of ICT infrastructure and services in each of the ASEAN Member States	▪ Conduct a study on the potential for an ASEAN single telecommunications market, including studying the various components and aspects of a single telecom market and indicating the 'readiness' across ASEAN Member States
Accelerate the development of an efficient and competitive logistics sector, in particular transport, tele-communications and other connectivity-related services in the region	▪ Explore alternative approaches for further liberalisation of services (including telecommunications) under the ASEAN Trade in Services Agreement (ATISA) and AEC 2025 Strategic Action Plan (SAP)

SEAMLESS LOGISTICS

Strategy	Initiative
Transport facilitation	▪ Accomplish the implementation of AFAFGIT and AFAFIST (including developing necessary ASEAN transport facilitation-related procedures) ▪ Assessment on the implementation of AFAMT ▪ Operationalise AFAFGIT and AFAFIST (which is under the overall measure to accomplish the implementation of AFAFGIT and AFAFIST)
Substantially improve trade facilitation in the region	▪ Activate and operate the ASEAN Single Window in selected ports as early as possible for ASEAN Member States who are ready to implement it, and eventually for all ASEAN Member States ▪ Fully roll out the National Single Windows in all ASEAN Member States

Strategy	Initiative
Accelerate the development of an efficient and competitive logistics sector	▪ Remove substantially all restrictions on trade in services for all other services sectors

REGULATORY EXCELLENCE

Strategy	Initiative
Accelerate the free flow of goods within ASEAN region by eliminating barriers to merchandise trade within the region	▪ Simplify and strengthen the implementation of the rules of origin (ROO)

PEOPLE MOBILITY

Strategy	Initiative
Promote deeper intra-ASEAN social and cultural understanding	▪ Development of content with focus on producing teaching and learning materials ▪ Translation and production of ASEAN sourcebook into local languages; provide capacity building on use of Sourcebook, and the topic of peace education
Encourage intra-ASEAN people mobility	▪ ASEAN will work towards considering further improvements to existing MRAs and consider the feasibility of additional MRAs ▪ Establish MRA for ICT skills certification, according to national guidelines ▪ Implement effectively the ASEAN lane at international airports in ASEAN Member States under APSC Blueprint 2025 ▪ The ASEAN tourism integration and budget committee continue to monitor and report development of a single visa initiative for ASEAN Member States
Implement initiatives to facilitate inter-state passenger land transportation	▪ Develop implementing guidelines for ASEAN CBTP and operationalise the ASEAN CBTP ▪ Strengthen coordination with sub-regional initiatives in the implementation of AFAFGIT, AFAFIST and AFAMT for a more convergence cross-border transport operation in the region

APPENDIX B

Outcome and Output Metrics for the Master Plan on ASEAN Connectivity 2025

Below is a list of the proposed outcome and output metrics to guide assessment of progress of the MPAC 2025.

SUSTAINABLE INFRASTRUCTURE

🟦 Metric currently available or easily obtained
🟥 Metric requiring development

Strategic objectives for 2025	Outcome metrics
1. Increase public and private infrastructure investment in each ASEAN Member State, as needed	Infrastructure spend in each ASEAN Member State. Private infrastructure spend available annually for most ASEAN Member States by the World Bank, with exception of Brunei Darussalam. Cambodia and Lao PDR have missing data for some years. Public sector spend has mixed availability across ASEAN Member States
	Number of projects in pipeline that reach financial close1
2. Significantly enhance the evaluation and sharing of best practices on infrastructure productivity in ASEAN	Improvements in infrastructure productivity index
3. Increase the deployment of smart urbanisation models across ASEAN	Improvement in city-level urbanisation performance index
Initiatives	**Output metrics**
1. Establish a rolling priority pipeline list of potential ASEAN infrastructure projects and sources of funds	Construct public database (with all relevant infrastructure projects in ASEAN)
	Create an ASEAN investor platform
2. Establish an ASEAN platform to measure and improve infrastructure productivity	Establish platform for sharing best practices
	Construct index on infrastructure productivity for all ASEAN Member States
	Launch training programmes to tackle major identified bottlenecks
	Conduct pilots for 5 funded ASEAN infrastructure projects to improve productivity of delivery

Strategic objectives for 2025	**Outcome metrics**
3. Develop sustainable urbanisation strategies in ASEAN cities	Establish platform for sharing best practices
	Conduct diagnostics for city-level performance in urbanisation
	Launch smart transport initiative in ASEAN cities

DIGITAL INNOVATION

🟦 Metric currently available or easily obtained
🟥 Metric requiring development

Strategic objectives for 2025	**Outcome metrics**
1. Support the adoption of technology by micro, small and medium enterprises (MSMEs)	Percent of SMEs in ASEAN with digital presence
2. Support financial access through digital technologies	Percentage of adult population with an account at a financial institution or mobile money service provider. Data from World Bank. Missing for Lao PDR and Brunei Darussalam.
3. Improve open data use in ASEAN Member States	Open Data Barometer score. Data available from World Wide Web Foundation for all ASEAN Member States except Cambodia, Lao PDR and Brunei Darussalam.
4. Support enhanced data management in ASEAN Member States	Improvements in data management index
Initiatives	**Output metrics**
1. Enhance the MSME technology platform	Completion of review of SME digital barriers and lessons from ASEAN Member States
	Addition of areas to ASEAN SME portal covering business expansion and technology adoption
2. Develop the ASEAN digital financial inclusion framework	Establish platform for sharing best practices across ASEAN Member States
	Construct framework on digital financial inclusion progress by ASEAN Member States
3. Establish an ASEAN open data network	Create an ASEAN data dictionary (with focus on prioritised sectors)
	Construct index of open data progress by ASEAN Member States, including by sector
	Establish government forum on open data

Strategic objectives for 2025	**Outcome metrics**
4. Establish an ASEAN digital data governance framework	Creation of ASEAN digital data governance framework
	Publish data management regulations by ASEAN Member State
	Establish forum on data management

SEAMLESS LOGISTICS

🟦 Metric currently available or easily obtained
🟥 Metric requiring development

Strategic objectives for 2025	**Outcome metrics**
1. Lower supply chain costs in each ASEAN Member State	Cost of transporting goods on prioritised economic corridors (drawing on ASEAN logistics database)
2. Improve speed and reliability of supply-chain in each ASEAN Member State	Time required transporting goods on prioritised economic corridors (drawing on ASEAN logistics database)
Initiatives	**Output metrics**
1. Strengthen ASEAN competitiveness through enhanced trade routes and logistics	Establish public database with regularly updated information on key trade routes (land and maritime) across ASEAN
	Establish outreach campaign to allow users to benefit from data
2. Enhance supply chain efficiency through addressing key chokepoints	Construct index on supply-chain efficiency
	At least one reform completed in each economic corridor on major "chokepoints" identified

REGULATORY EXCELLENCE

🟦 Metric currently available or easily obtained
🟥 Metric requiring development

Strategic objectives for 2025	**Outcome metrics**
1. Harmonise or mutually recognise standards, conformance, and technical regulations for products in key sectors	Number of harmonised standards/technical regulations of each priority sector.

Strategic objectives for 2025	**Outcome metrics**
2. Reduce number of trade- distorting non-tariff measures across ASEAN Member States	Number of NTMs assessed to be trade-distorting
Initiatives	**Output metrics**
1. Complete harmonisation of standards, mutual recognition, and technical regulations in three prioritised product groupings	Complete implementation of harmonisation of standards and regulatory regimes, MRA in at least one product in the 3 priority sectors
	Establish "toolkits" of international best practice on standards, MRAs, and technical regulations for each of the 3 product groupings
	Establish forums for convening regulators, ACCSQ and trade officials in 3 prioritised sectors
2. Increase transparency and strengthen evaluation to reduce trade-distorting non-tariff measures	Removal of NTMs assessed to be trade-distorting (during first assessment)
	Development of a comprehensive list of NTMs across ASEAN Member States
	Establishment of independent high-level panel to assess NTMs

PEOPLE MOBILITY

🟦 Metric currently available or easily obtained
🟥 Metric requiring development

Strategic objectives for 2025	**Outcome metrics**
1. Support ease of travel throughout ASEAN	Number of people obtaining visa through ASEAN online portal
	Number of people applying for visa through ASEAN online portal
	Number of people visiting ASEAN tourism website
	Number of intra-ASEAN tourists. Data from ASEAN Secretariat.
	Number of tourists from outside ASEAN. Data from ASEAN Secretariat.
2. Reduce the gaps between vocational skills demand and supply across SEAN	Number of people completing new vocational training programmes

Strategic objectives for 2025	**Outcome metrics**
3. Increase the number of intra-ASEAN international students	Number of intra-ASEAN international university students. UNESCO UIS databank - data incomplete for different student categories and for different ASEAN Member States.
Initiatives	**Output metrics**
1. Enhance ASEAN travel by making finding information easier	Enhance ASEAN tourism website with detailed travel itineraries
2. Ease ASEAN travel by facilitating visa processes	Establish e-visas across all ASEAN Member States
	Develop one-stop shop for travel visa applications in ASEAN
3. Establish new vocational training programmes and common qualifications across ASEAN Member States, in accordance with national circumstances of each ASEAN Member State	Establish 3 vocational standards and training programmes across ASEAN Member States
4. Support higher education exchange across ASEAN Member States	Availability of visas to support ASEAN university student mobility
	Develop database with flows of ASEAN university students by ASEAN Member State and degree type
	Develop internship programme
	Develop alumni and student ambassador programme

APPENDIX C

Lead Implementing Bodies for Initiatives Under the Master Plan on ASEAN Connectivity 2025

Below is a list of the proposed lead implementing bodies for initiatives under the MPAC 2025.

SUSTAINABLE INFRASTRUCTURE

Initiatives	Lead implementing body[a]	Other implementing bodies / stakeholders
1. Establish a rolling priority pipeline list of potential ASEAN infrastructure projects and sources of funds	ACCC and NCs	SEOM; STOM; SOME; Coordinating Committee on Investment (CCI); Planning agencies / PPP units; Ministry of Public Works
2. Establish an ASEAN platform to measure and improve infrastructure productivity	ACCC and NCs	SEOM; STOM; SOME; CCI Planning agencies / PPP units; Ministry of Public Works
3. Develop sustainable urbanisation strategies in ASEAN cities	ACCC and NCs	ASEAN Senior Officials on Environment (ASOEN) / ASEAN Working Group on Environmentally Sustainable Cities (AWGESC); STOM; SOME; City-level leaders

Note a: Until an appropriate lead implementing body has been identified/established, the ACCC, National Coordinators (NCs) and the ASEAN Secretariat will, in the interim, coordinate the implementation of initiatives under strategic area of sustainable infrastructure.

DIGITAL INNOVATION

Initiatives	Lead implementing body	Other implementing bodies / stakeholders
1. Enhance the MSME technology platform	ACCMSME	TELSOM
2. Develop the ASEAN digital financial inclusion framework	Working committee on financial inclusion (WC-FINC)	National regulators
3. Establish an ASEAN open data network	TELSOM	SEOM; SOMED; Senior Officials Meeting on Health Development (SOMHD); ACSS Committee; Government agencies
4. Establish an ASEAN digital data governance framework	TELSOM	SEOM, SOMED; SOMHD, Government agencies

SEAMLESS LOGISTICS

Initiatives	Lead implementing body	Other implementing bodies / stakeholders
1. Strengthen ASEAN competitiveness through enhanced trade routes and logistics	SEOM	STOM; Customs DG; DGICM; SOMHD; Senior Officials Meeting for ASEAN Ministers on Agriculture and Forestry (SOM-AMAF); Logistics and Transport Services Sectoral Working Group (LTSSWG); Logistics coordinating councils
2. Enhance supply chain efficiency through addressing key chokepoints	SEOM	STOM; Customs DG; DGICM; SOMHD; SOM-AMAF; LTSSWG; Logistics coordinating councils

REGULATORY EXCELLENCE

Initiatives	Lead implementing body	Other implementing bodies / stakeholders
1. Complete harmonisation of standards, mutual recognition, and technical regulations in three prioritised product groupings	ACCSQ	SEOM; National regulators
2. Increase transparency and strengthen evaluation to reduce trade-distorting non-tariff measures	SEOM	ACCSQ; SOMHD; SOM-AMAF

PEOPLE MOBILITY

Initiatives	Lead implementing body	Other implementing bodies / stakeholders
1. Enhance ASEAN travel by making finding information easier	ASEAN National Tourism Organisations (NTOs)	ASEAN Tourism Assocation (ASEANTA)
2. Ease ASEAN travel by facilitating visa processes	DGICM	NTOs

Initiatives	Lead implementing body	Other implementing bodies / stakeholders
3. Establish new vocational training programmes and common qualifications across ASEAN Member States, in accordance with national circumstances of each ASEAN Member State	SOMED	SEOM; DGICM (facilitating body)
4. Support higher education exchange across ASEAN Member States	SOMED	ASEAN University Network (AUN); DGICM (facilitating body); ACSS Committee

APPENDIX D

Work Plan for the Master Plan on ASEAN Connectivity 2025

Each initiative will consist of three phases of implementation:

- **Planning Phase.** This is a preparatory phase, which enables the resource requirements to be addressed, as well as detailed coordination with the relevant implementing bodies.
- **Phase 1 Implementation.** This phase will involve the initial implementation of the initiatives. The basic processes (including data gathering, design of capability building programmes, and launch of knowledge exchange platforms) will be conducted during this phase.
- **Phase 2 Implementation.** This phase will involve the continued implementation of the initiatives to enable them to reach critical scale of impact. This will include broadening and deepening some of the initial processes established during Phase 1.

🟧 Planning Phase
🟦 Phase 1 Implementation
⬜ Phase 2 Implementation

SUSTAINABLE INFRASTRUCTURE

Initiative 1 – Establish a rolling priority pipeline list of potential ASEAN infrastructure projects and sources of funds

No.	Key implementing measures	Lead implementing body [a]	Other implementing bodies/ stakeholders	End date
	Conduct planning phase (including funding requirements and detailed coordination with relevant sectors)			Jun-17
1)	Establish template for ASEAN Member States to complete on potential infrastructure projects	ACCC and NCs	SEOM; STOM; SOME; CCI; Planning agencies / PPP units; Ministry of Public Works; relevant international organisations	Dec-17
2)	Build website infrastructure	ACCC and NCs	SEOM; STOM; SOME; CCI; Planning agencies / PPP units; Ministry of Public Works; and other implementing agencies	Feb-18
3)	Include initial 8 ASEAN infrastructure projects which have completed information to share on website	ACCC and NCs	SEOM; STOM; SOME; CCI; Planning agencies / PPP units; Ministry of Public Works;	Mar-18

4)	Prepare business cases for remaining projects in ASEAN Connectivity 2025 initial list	ACCC and NCs	SEOM; STOM; SOME; CCI; Planning agencies / PPP units; Ministry of Public Works;	Sep-18
5)	Work with ASEAN Member States to prepare investor presentation for projects	ACCC and NCs		Apr-19
6)	Organise and hold investor forum	ACCC and NCs	SEOM; STOM; SOME; CCI; Planning agencies / PPP units; Ministry of Public Works; Implementing agencies; Investors; relevant international organisations	May-19
7)	Engage with ASEAN Member States on additional projects to be potentially included	ACCC and NCs	SEOM; STOM; SOME; CCI; Planning agencies / PPP units; Ministry of Public Works;	Dec-19
8)	Provide capability support to ASEAN Member States to complete standardised template	ACCC and NCs	SEOM; STOM; SOME; CCI; Planning agencies / PPP units; Ministry of Public Works;	Dec-19
9)	Assess projects based on criteria: ASEAN connectivity relevance, ASEAN Member States country support, and feasibility	ACCC and NCs	SEOM; STOM; SOME; CCI; Planning agencies / PPP units; Ministry of Public Works; other implementing agencies	Mar-20
10)	Short-list projects for consultant and ASEAN Member States to prepare briefing document, including high-level financial analysis	ACCC and NCs		Mar-20
11)	Include additional projects on website which are potentially amenable to private sector participation	ACCC and NCs		Apr-20
12)	Hold annual investor forums based on the results (yearly basis)	ACCC and NCs	SEOM; STOM; SOME; CCI; Planning agencies / PPP units; Ministry of Public Works; Implementing agencies; investors; relevant international organisations	On-going
13)	Compile, assess, short-list and publish data on the website for ASEAN Member States projects (yearly basis)	ACCC and NCs	SEOM; STOM; SOME; CCI; Planning agencies / PPP units; Ministry of Public Works;	On-going

Note a: Until an appropriate lead implementing body has been identified/established, the ACCC, National Coordinators (NCs) and the ASEAN Secretariat will, in the interim, coordinate the implementation of initiatives under strategic area of sustainable infrastructure

Initiative 2 – Establish an ASEAN platform to measure and improve infrastructure productivity

No.	Key implementing measures	Lead implementing body [a]	Other implementing bodies/ stakeholders	End date
	Conduct planning phase (including funding requirements and detailed coordination with relevant sectors)			Jun-17
1)	Develop an ASEAN infrastructure productivity framework drawing on best practices (internationally and within ASEAN)	ACCC and NCs	SEOM; STOM; SOME; CCI; Planning agencies / PPP units; Ministry of Public Works; other implementing agencies	Nov-17
2)	Populate the framework with data and information from different ASEAN Member States	ACCC and NCs	SEOM; STOM; SOME; CCI; Planning agencies / PPP units; Ministry of Public Works; other implementing agencies	Jun-18
3)	Publish results and key learnings on the ASEAN Connectivity website	ACCC and NCs		Dec-18
4)	Organise a forum to discuss the findings and share best practices	ACCC and NCs	SEOM; STOM; SOME; CCI; Planning agencies / PPP units; Ministry of Public Works; other implementing agencies	May-19
5)	Coordinate with training institutions to take-stock of existing capability building programmes, and coordinate with training institutions to identify/ develop a programme targeted to key gaps	ACCC and NCs	SEOM; STOM; SOME; CCI; Planning agencies / PPP units; Ministry of Public Works; other implementing agencies	Nov-19
6)	Launch follow up surveys to gather data and assess improvement (yearly basis)	ACCC and NCs	SEOM; STOM; SOME; CCI; Planning agencies / PPP units; Ministry of Public Works; other implementing agencies	On-going
7)	Organise forums to discuss findings and share best practices (bi-yearly basis)	ACCC and NCs	SEOM; STOM; SOME; CCI; Planning agencies / PPP units; Ministry of Public Works; other implementing agencies	On-going
8)	Conduct on-going trainings for government officials on infrastructure productivity (yearly basis)	ACCC and NCs	SEOM; STOM; SOME; CCI; Planning agencies / PPP units; Ministry of Public Works; other implementing agencies	On-going

Note a: Until an appropriate lead implementing body has been identified/established, the ACCC, National Coordinators (NCs) and the ASEAN Secretariat will, in the interim, coordinate the implementation of initiatives under strategic area of sustainable infrastructure.

Initiative 3 – Develop sustainable urbanisation strategies in ASEAN cities

No.	Key implementing measures	Lead implementing body [a]	Other implementing bodies/ stakeholders	End date
	Conduct planning phase (including funding requirements and detailed coordination with relevant sectors)			Jun-17
1)	Stock-take of the current frameworks for city urbanisation strategies like the IMT-GT Green cities initiative	ACCC and NCs	ASOEN/AWGESC; STOM; SOME; Planning agencies; City-level leaders; relevant international organisations	Dec-17
2)	Develop an ASEAN city assessment of urbanisation performance	ACCC and NCs	ASOEN/AWGESC; STOM; SOME; Planning agencies; City-level leaders; relevant international organisations	Jun-18
3)	Identify middle-weight cities to incorporate in Phase 1 of the assessment (2-3 cities/ASEAN Member States)	ACCC and NCs	ASOEN/AWGESC; STOM; SOME; Planning agencies; City-level leaders	Sep-18
4)	**Phase 1:** Evaluate the performance of the chosen cities against the assessment index	ACCC and NCs	ASOEN/AWGESC; STOM; SOME; Planning agencies; City-level leaders	Mar-19
5)	**Phase 1:** Publish results on ASEAN connectivity website and on the ASEAN environment portal	ACCC and NCs	ASOEN/AWGESC; STOM; SOME; Planning agencies; City-level leaders	Apr-19
6)	**Phase 1:** Organise forums for city-leaders to discuss findings, Could be combined with the Cities Development Initiative for Asia (CDIA) forum	AWGESC	ASOEN/AWGESC; STOM; SOME; Planning agencies; City-level leaders; relevant international organisations	May-19
7)	Launch a smart transport initiative, linked to public transport and non-motorised transport, across ASEAN cities	ACCC and NCs	ASOEN/AWGSEC; STOM; SOME; Planning agencies; City-level leaders	Jan-21
8)	Start phase 2-4 of the middle-weights cities assessment (bi-yearly basis) - this includes identifying 2-3 cities per each ASEAN Member States, evaluating performance of cities, publishing results and organising forums)	ACCC and NCs	ASOEN/AWGESC; STOM; SOME; Planning agencies; City-level leaders	On-going

Note a: Until an appropriate lead implementing body has been identified/established, the ACCC, National Coordinators (NCs) and the ASEAN Secretariat will, in the interim, coordinate the implementation of initiatives under strategic area of sustainable infrastructure.

DIGITAL INNOVATION

Initiative 4 – Enhance the MSME technology platform

No.	Key implementing measures	Lead implementing body	Other implementing bodies/ stakeholders	End date
	Conduct planning phase (including funding requirements and detailed coordination with relevant sectors)			Dec-17
1)	Develop a survey for MSMEs to collect data on: -Current level of digital adoption -Barriers and challenges that prevent MSMEs from digital adoption	ACCMSME	TELSOM	Apr-18
2)	Conduct surveys across ASEAN Member States and summarise results	ACCMSME	TELSOM	Oct-18
3)	Collect best practices from ASEAN Member States on actions taken to enhance MSMEs digital adoption	ACCMSME	TELSOM	Nov-18
4)	Conduct a forum between all stakeholders to share -Results from MSMEs surveys -Best practices from each ASEAN Member State	ACCMSME	TELSOM; Business associations; relevant international organisations;	Feb-19
5)	Develop a digital adoption programme that would address awareness and usage issues of MSMEs of digital technologies	ACCMSME	TELSOM	Aug-19
6)	Consult the programme details with stakeholders	ACCMSME	Business associations; relevant international organisations	Aug-19
7)	ASEAN SME portal: Review design of portal based on survey feedback from SMEs and analysis of international and ASEAN best practice	ACCMSME	TELSOM; Business associations	Dec-19
8)	ASEAN SME portal: Catalogue existing ASEAN digital-related content, digital support programmes/ grants (by both private and public sectors), and events	ACCMSME	TELSOM	Dec-19
9)	ASEAN SME portal: Publish existing contents, programmes and events on the portal	ACCMSME	TELSOM	Mar-20
10)	ASEAN SME portal: Collaborate with national agencies and business associations to promote the portal as a channel for digital content, programmes and events	ACCMSME	TELSOM	Jun-20
11)	ASEAN SME portal: Assess additional functionality needed on the portal (e.g., company registration, online contracts, business opportunity/ deals)	ACCMSME	TELSOM	Sep-20

12)	ASEAN SME portal: Engage in site development for the new functions, and incorporate into the existing platform	ACCMSME	TELSOM	Feb-21
13)	ASEAN SME portal: Promote the new functionalities to MSMEs and monitor uptake	ACCMSME	TELSOM	Oct-21
14)	Launch follow up surveys to gather data and assess improvement (biyearly basis)	ACCMSME	TELSOM	On-going

Initiative 5 – Develop the ASEAN digital financial inclusion framework

No.	Key implementing measures	Lead implementing body	Other implementing bodies/ stakeholders	End date
	Conduct planning phase (including funding requirements and detailed coordination with relevant sectors)			Jun-17
1)	Conduct stocktaking on the digital financial inclusion in ASEAN focusing on the regulatory framework, channels, business models and players, to identify gaps and areas for improvement	WC-FINC	National regulators; relevant working committees; relevant international organisations	Dec-17
2)	Develop ASEAN Digital Financial Inclusion Framework and Guidance which serves as a reference for countries in enhancing digital financial inclusion infrastructure at the national level	WC-FINC	National regulators; relevant working committees; relevant international organisations	Dec-19
3)	Develop measurement of digital financial inclusion infrastructure readiness to facilitate monitoring of digital financial inclusion implementation	WC-FINC	National regulators; relevant working committees; relevant international organisations	Dec-19
4)	Conduct peer learning and facilitate knowledge sharing of digital financial inclusion implementation	WC-FINC	National regulators; relevant working committees; relevant international organisations	On-going
5)	Develop research report on case studies on digital financial inclusion implementation	WC-FINC	National regulators; relevant working committees; relevant international organisations	Dec-21
6)	Develop research report on digital financial inclusion: Final assessment and review	WC-FINC	National regulators; relevant working committees; relevant international organisations	Dec-25

Initiative 6 – Establish an ASEAN open data network

No.	Key implementing measures	Lead implementing body	Other implementing bodies/ stakeholders	End date
	Conduct planning phase (including funding requirements and detailed coordination with relevant sectors)			Dec-18
1)	Align on open data definition and develop templates to obtain ASEAN Member States' input on open data development by sector, including: -List of available data (both that are made publically available, and those that can be shared) -For each data set, parameters that can contribute to creating a 'Data Dictionary' e.g., methods/ frequency of collection, fields collected	TELSOM	SEOM; SOMED; SOMHD; ACSS Committee; Government agencies; Private sector representatives	Apr-18
2)	Share template and consolidate responses by ASEAN Member States by sector	TELSOM	SEOM; SOMED; SOMHD; ACSS Committee; Government agencies; Private sector representatives	Aug-18
3)	Summarise results, compute 'open data' index based on ASEAN Member States open data development by sector (including preliminary cost-benefit analysis for each sector)	TELSOM	SEOM; SOMED; SOMHD; ACSS Committee; Government agencies; Private sector representatives	Nov-18
4)	Align outputs with ASEAN Member States	TELSOM	SEOM; SOMED; SOMHD; ACSS Committee; Government agencies; Private sector representatives	Apr 19
5)	Hold a forum to share summary of results across ASEAN Member States, align on sectors for further improvements, and engage in sector-specific discussions during the afternoon breakouts to discuss potential actions to enhance open data in prioritised sectors, which could include but not limited to: -Complete a detailed 'Data Dictionary' and make it publicly available -Develop data standards to guide data collecting process to allow for open data -Classification of data (e.g., sensitivity, users, and allowed actions)	TELSOM	SEOM; SOMED; SOMHD; ACSS Committee; Government agencies; Private sector representatives	Apr-19
6)	Conduct further analysis on the identified sectors to gather fact-base and improvement opportunities from international best-practice examples	TELSOM	SEOM; SOMED; SOMHD; Government agencies; Private sector representatives	Jul-19
7)	Share results with ASEAN Member States to encourage improvement actions	TELSOM	SEOM; SOMED; SOMHD; Government agencies; Private sector representatives	Oct-19

8)	Establish portal with online data dictionary	TELSOM	SEOM; SOMED; SOMHD; ACSS Committee; Government agencies; Private sector representatives	Jun-20
9)	Calculate ASEAN open data index to measure improvements (yearly basis)	TELSOM	SEOM; SOMED; SOMHD; ACSS Committee; Government agencies; Private sector representatives	On-going
10)	Engage in similar exercise to follow up with progress of currently prioritised sectors and identify new sets of sectors (annual basis)	TELSOM	SEOM; SOMED; SOMHD; Government agencies; Private sector representatives	On-going

Initiative 7 – Establish an ASEAN digital data governance framework

No.	Key implementing measures	Lead implementing body	Other implementing bodies/ stakeholders	End date
	Conduct planning phase (including funding requirements and detailed coordination with relevant sectors)			Dec-17
1)	Develop an approach to assess data regulation leveraging international best practices	TELSOM	SEOM; Government agencies	May-18
2)	Map different data management legislation in ASEAN Member States, by sector, following the elements laid out in the framework	TELSOM	SEOM; Government agencies	Oct-18
3)	Measure degree of alignment of data management frameworks in ASEAN with international frameworks	TELSOM	SEOM; Government agencies	Mar-19
4)	Publish results (make publicly accessible) of both the legislation in ASEAN, and also degree of alignment with other frameworks	TELSOM	SEOM; Government agencies	Jun-19
5)	Hold a forum to share summary of results, align on sectors for further improvements, and engage in sector-specific discussions during the afternoon breakouts to discuss potential actions to enhance digital data governance in prioritised sectors, which could include but not limited to: -Adopting international standards in certain areas of data management	TELSOM	SEOM; Government agencies	Sep-19
6)	Conduct further analysis on the identified sectors to gather fact-base and improvement opportunities from international best-practice examples	TELSOM	SEOM; Government agencies	Feb-20

7)	Share results with ASEAN Member States to encourage improvement actions	TELSOM	SEOM; SOMED; SOMHD; Government agencies; Private sector representatives	Jun-20
8)	Create an ASEAN digital data governance framework	TELSOM	SEOM; SOMED; SOMHD; Government agencies; Private sector representatives	Dec-20
9)	Collect and publish information of ASEAN Member States' data management legislation along the framework elements, and degree of alignment to international frameworks (yearly basis)	TELSOM	SEOM; SOMED; SOMHD; Government agencies; Private sector representatives	On-going
10)	Engage in similar exercise to follow up with progress of currently prioritised sectors and identify new sets of sectors (biannual basis)	TELSOM	SEOM; SOMED; SOMHD; Government agencies; Private sector representatives	On-going

SEAMLESS LOGISTICS

Initiative 8 – Strengthen ASEAN competitiveness through enhanced trade routes and logistics

No.	Key implementing measures	Lead implementing body	Other implementing bodies/ stakeholders	End date
	Conduct planning phase (including funding requirements and detailed coordination with relevant sectors)			Dec-17
1)	Identify approximately 3 key priority trade lanes or economic corridors (maritime and land)	SEOM	STOM; Customs DG; DGICM; SOMHD; SOM-AMAF; LTSSWG; Logistics coordinating councils; National logistics industry associations	Jun-18
2)	Identify key commodities to monitor to examine on the key trade routes (approximately 5 commodities per route)	SEOM	STOM; Customs DG; DGICM; SOMHD; SOM-AMAF; LTSSWG; Logistics coordinating councils; National logistics industry associations	Jul-18
3)	Agree on methodology and partners for ongoing collection of data and analysis	SEOM	STOM; Customs DG; DGICM; SOMHD; SOM-AMAF; LTSSWG; Logistics coordinating councils; National logistics industry associations	Nov-18

4)	Collect data for the priority commodities along identified trade routes	SEOM	STOM; Customs DG; DGICM; SOMHD; SOM-AMAF; LTSSWG; Logistics coordinating councils; National logistics industry associations	Dec-19
5)	Publish data on the ASEAN connectivity website for the trade route and commodities (including additional functionality of the website platform, integrating the data and maintaining the website)	SEOM	STOM; Customs DG; DGICM; SOMHD; SOM-AMAF; LTSSWG; Logistics coordinating councils	Feb-20
6)	Develop mechanisms to ensure data is translated into impact	SEOM	STOM; Customs DG; DGICM; SOMHD; SOM-AMAF; LTSSWG; Logistics coordinating councils	Sep-20
7)	Update the data for existing trade route and commodities	SEOM	STOM; Customs DG; DGICM; SOMHD; SOM-AMAF; LTSSWG; Logistics coordinating councils	Dec-25
8)	Develop data for new trade routes (up to 8 routes with priority commodities)	SEOM	STOM; Customs DG; DGICM; SOMHD; SOM-AMAF; LTSSWG; Logistics coordinating councils	Jul-21

Initiative 9 – Enhance supply chain efficiency through addressing key chokepoints

No.	Key implementing measures	Lead implementing body	Other implementing bodies/ stakeholders	End date
	Conduct planning phase (including funding requirements and detailed coordination with relevant sectors)			Dec-17
1)	Prioritise key trade lanes or economic corridors	SEOM	STOM; Customs DG; DGICM; SOMHD; SOM-AMAF; LTSSWG; Logistics coordinating councils; relevant international organisations	Jun-18
2)	Develop supply chain framework for assessing “chokepoints”	SEOM	STOM; Customs DG; DGICM; SOMHD; SOM-AMAF; LTSSWG; Logistics coordinating councils; relevant international organisations	Oct-18

3)	Establish a mechanism to support and implement border management measures	SEOM	STOM; Customs DG; DGICM; SOMHD; SOM-AMAF; LTSSWG; Logistics coordinating councils; relevant international organisations	Jun-19
4)	Develop an index on “supply chain performance” based on data collected from ASEAN Member States	SEOM	STOM; Customs DG; DGICM; SOMHD; SOM-AMAF; LTSSWG; Logistics coordinating councils; relevant international organisations	Nov-19
5)	Organise a conference/forum to discuss best practices of improving supply chain performance from ASEAN Member States: -Lessons on improving transport facilitation -Lessons on improvement in logistics -Discuss “bottlenecks” in current supply chain network	SEOM	STOM; Customs DG; DGICM; SOMHD; SOM-AMAF; LTSSWG; Logistics coordinating councils; relevant international organisations	Apr-20
6)	Calculate index on supply chain performance to measure improvements (yearly basis)	SEOM	STOM; Customs DG; DGICM; SOMHD; SOM-AMAF; LTSSWG; Logistics coordinating councils; relevant international organisations	On-going
7)	Hold a forum to discuss the results from the index and share lessons learnt (biyearly basis)	SEOM	STOM; Customs DG; DGICM; SOMHD; SOM-AMAF; LTSSWG; Logistics coordinating councils; relevant international organisations	On-going
8)	Strengthen ASEAN supply chain and logistics performance through capacity building	SEOM	STOM; Customs DG; LTSSWG; DGICM; SOMHD; SOM-AMAF; Logistics coordinating councils; relevant international organisations	On-going

REGULATORY EXCELLENCE

Initiative 10 – Complete harmonisation of standards, mutual recognition, and technical regulations in three prioritised product groupings

No.	Key implementing measures	Lead implementing body	Other implementing bodies/ stakeholders	End date
	Conduct planning phase (including funding requirements and detailed coordination with relevant sectors)			Jun-17
1)	Gather data for different sectors, on: -Importance for trade flows (e.g., value, volume) -Degree of standards harmonisation to date -Technical trade barriers -Relevance for private sector (through engagement with private sector to obtain their inputs)	ACCSQ	SEOM; National regulators	Nov-17
2)	Analyse and prioritise key priority sectors based on the information gathered	ACCSQ	SEOM; National regulators	Mar-18
3)	For prioritised sectors, build fact base on: -International best practice for standards and technical regulations -Benefits to ASEAN Member States -Addressing likely concerns of ASEAN Member States	ACCSQ	SEOM; National regulators	Sep-18
4)	Communicate results to relevant stakeholders in all ASEAN Member States	ACCSQ	SEOM; National regulators	Jan-20
5)	Hold forums (stakeholder engagement workshops, one per ASEAN Member State) between trade officials, ACCSQ, national regulators and private sector to share results, align on approach and accelerate action	ACCSQ	SEOM; National regulators	Jun-19
6)	Monitor progress for the prioritised sectors	ACCSQ	SEOM; National regulators	On-going
7)	Consolidate learning on the progress and results, and share learnings among ASEAN Member States (once after each phase)	ACCSQ	SEOM; National regulators	On-going
8)	Repeat the exercise for new sectors (expected to be able to complete additional 2 rounds until 2025)	ACCSQ	SEOM; National regulators	On-going

Initiative 11 – Increase transparency and strengthen evaluation to reduce trade-distorting non-tariff measures

No.	Key implementing measures	Lead implementing body	Other implementing bodies/ stakeholders	End date
	Conduct planning phase (including funding requirements and detailed coordination with relevant sectors)			Dec-17
1)	Develop and monitor progress of ATR and ASSIST	SEOM	-	-
2)	Define scope of NTMs to evaluate (specific focus on technical measures)	SEOM	ACCSQ	Feb-18
3)	Conduct a study to define appropriate quantification and benchmarking approach, which will be used to prioritise NTMs which are trade-distorting	SEOM	ACCSQ; SOMHD; SOM-AMAF, National agencies; relevant international organisations; Private sector business associations;	Aug-18
4)	Consult and communicate selected quantification and benchmarking methodology with ASEAN Member States and relevant stakeholders	SEOM	ACCSQ; SOMHD; SOM-AMAF; National agencies; relevant international organisations; Private sector business associations;	Dec-18
5)	Develop and seek alignment from ASEAN Member States and relevant stakeholders on TOR of a panel to conduct and evaluate NTMs and define which of the measures are trade-distorting based on the defined methodology	SEOM	ACCSQ; SOMHD; SOM-AMAF; National agencies	May-19
6)	Establish a panel	SEOM	-	Nov-19
7)	Consolidate results of NTMs from ATR and conduct quantification and benchmarking analysis	SEOM	ACCSQ; SOMHD; SOM-AMAF; Private sector; Business associations; relevant international organisations	Jul-20
8)	Panel to evaluate the results from the analysis, and prioritise NTMs which are trade-distorting	SEOM	ACCSQ; SOMHD; SOM-AMAF; Private sector; Business associations; relevant international organisations;	Oct-20
9)	Publish proritised trade-distorting NTMs online	SEOM	-	Dec-20

10)	Develop and establish GRP into the process of NTMs (new NTMs and changes to existing NTMs)	SEOM	ACCSQ; SOMHD; SOM-AMAF; Private sector; Business associations; relevant international organisations	Sep-20
11)	Communicate GRP in NTMs with ASEAN Member States	SEOM	ACCSQ; SOMHD; SOM-AMAF; Private sector; Business associations; relevant international organisations	Feb-21
12)	Monitor ATR to track progress of trade-distorting NTMs in ASEAN	SEOM	ACCSQ; SOMHD; SOM-AMAF; Private sector; Business associations; relevant international organisations	-
13)	Repeat the exercise of prioritising NTMs (biyearly basis)	SEOM	ACCSQ; SOMHD; SOM-AMAF; Private sector; Business associations; relevant international organisations	

PEOPLE MOBILITY

Initiative 12 – Enhance ASEAN travel by making finding information easier

No.	Key implementing measures	Lead implementing body	Other implementing bodies/ stakeholders	End date
	Conduct planning phase (including funding requirements and detailed coordination with relevant sectors)			Jun-17
1)	Review regional travel websites to identify opportunities to enhance the tourism website	NTOs	ASEANTA	Sep-17
2)	Gather input from ASEAN Member States on adding travel information on their countries to develop itineraries	NTOs	ASEANTA	Dec-17
3)	Build travel itineraries for tourists who are travelling to multiple ASEAN Member States and update the tourism website,	NTOs	ASEANTA	Jul-18
4)	Translate website into multiple languages based on major overseas travel groups	NTOs	ASEANTA	Jan-19
5)	Conduct outreach effort to major tourism operators and tourism information providers to drive usage to ASEAN website	NTOs	ASEANTA	Dec-19

6)	On-going promotion and advertisement of the ASEAN regional tourism website to both intra-regional and international tourists	NTOs	ASEANTA	On-going

Initiative 13 – Ease ASEAN travel by facilitating visa processes

No.	Key implementing measures	Lead implementing body	Other implementing bodies/ stakeholders	End date
	Conduct planning phase (including funding requirements and detailed coordination with relevant sectors)			Jun-17
1)	Review the current visa processing times and eligibility in ASEAN Member States	DGICM	NTOs	Aug-18
2)	Collect information on visa application processes from the immigration departments of ASEAN Member States	DGICM	-	Oct -18
3)	Review the e-visa status of ASEAN Member States and standardise visa application forms for those countries with e-visa	DGICM	NTOs	May - 19
4)	Integrate e-visa application into the tourism website (for countries that already operate e-visa)	NTO / DGICM	-	Nov - 19
5)	Develop consolidation of international best-practices in e-visa migration, and provide step-by-step approach to help guide ASEAN Member States to migrate to e-visa	DGICM	NTOs	Mar - 20
6)	Monitor progress and integrate e-visa application (for the remaining ASEAN Member States) over time, including gradually integrating additional e-visa applications into the portal	DGICM	NTOs; ASEANTA	On-going

Initiative 14 – Establish new vocational training programmes and common qualifications across ASEAN Member States in accordance with national circumstances of each ASEAN Member State

No.	Key implementing measures	Lead implementing body	Other implementing bodies/ stakeholders	End date
	Conduct planning phase (including funding requirements and detailed coordination with relevant sectors)			Dec-17
1)	Review the current skill gap studies in ASEAN especially ILO/ADB and identify gaps in skills or in sector to build on the skill database	SOMED	SEOM, relevant international organisations	May-18
2)	Conduct study on TVET programmes that are currently in existence in ASEAN by sector	SOMED	SLOM; SEOM, relevant international organisations; SEAMEO VOCTECH	Aug-18

3)	Identify a 2-3 sectors with private sector interest and relevance for ASEAN Member States	SOMED	SEOM; TVET sector; Private sector	Dec-18
4)	Identify a Member State that has a successful established training and common skills qualification framework and one or two other ASEAN Member States who are ready to adopt the same	SOMED	SEOM; TVET sector; Private sector	Apr-19
5)	Further develop training programmes that establish common competencies in prioritised sectors across ASEAN Member States	SOMED	SEOM; TVET sector; Private sector; SEAMEO VOCTECH	May-21
6)	Roll-out training programme design to other ASEAN Member States	SOMED	SEOM; TVET sector; Private sector; SEAMEO VOCTECH	Jun-25
7)	Harmonise qualifications and competencies across identified sectors	SOMED	DGICM	Jul-25

Initiative 15 – Support higher education exchange across ASEAN Member States

No.	Key implementing measures	Lead implementing body	Other implementing bodies/ stakeholders	End date
	Conduct planning phase (including funding requirements and detailed coordination with relevant sectors)			Dec-17
1)	Conduct a study on potential sources and approach to create a comprehensive student mobility database (credit-based, degree-based and non-degree-based), including: -Identify information sources to consolidate e.g. statistics office, universities in ASEAN Member States -Develop template to collect information	SOMED	ACSS Committee; AUN	Jun-18
2)	Distribute templates to information sources to collect data	SOMED	ACSS Committee; AUN	Oct-18
3)	Consolidate data from sources and establish a student mobility database (credit-based, degree-based and non-degree-based)	SOMED	ACSS Committee; AUN	Mar-19
4)	Summarise data and share results with ASEAN Member States / relevant stakeholders	SOMED	-	Jun-19
5)	Use ASEAN websites and other social media to raise awareness on inter-ASEAN student exchange	SOMED	-	Aug-19
6)	Conduct a study on the status of visas needed for student mobility (e.g., credit-based, degree-based, and non-degree based)	SOMED	DGICM; AUN	Jul-19

7)	Conduct a survey across ASEAN Member States students to identify why mobility within ASEAN Member States is low	SOMED	AUN	May-20
8)	Based on the visa gaps identified, work with the immigration departments to ensure this gap is met and there are visas for all types of students travelling within ASEAN Member States	SOMED	DGICM; AUN	Aug-21
9)	Develop and create alumni network of students that are associated with the EU scholarship (including expanding alumni network to other scholarship programmes for higher students by identifying student ambassadors in ASEAN Member States)	SOMED	AUN; University networks and alumni programmes in ASEAN Member States	Mar-21
10)	Partner with the private sector to create internship opportunities for scholarship students and students associated with the alumni networks	SOMED	AUN; Private sector	Dec-21
11)	Maintain alumni network for scholarship students (yearly)	SOMED	AUN; Private sector	On-going
12)	Update data on student mobility (credit-based, degree-based and non-degree-based) - (yearly)	SOMED	ACSS Committee; AUN;	On-going

GLOSSARY

ABF	Asia Bond Fund
ABMI	Asian Bond Market Initiative
ACCC	ASEAN Connectivity Coordinating Committee
ACCMSME	ASEAN Coordinating Committee on Micro, Small and Medium Enterprises
ACCSQ	ASEAN Consultative Committee for Standards and Quality
ACSS	ASEAN Community Statistical System
ADB	Asian Development Bank
AEC	ASEAN Economic Community
AFAMT	ASEAN Framework Agreement on Multimodal Transport
AFAFGIT	ASEAN Framework Agreement on the Facilitation of Goods in Transit
AFAFIST	ASEAN Framework Agreement on the Facilitation on Inter-State Transport
AHN	ASEAN Highway Network
AIF	ASEAN Infrastructure Fund
AIIB	Asian Infrastructure Investment Bank
AIX	ASEAN Internet Exchange Network
APEC	Asia Pacific Economic Cooperation
APG	ASEAN Power Grid
ASAM	ASEAN Single Aviation Market
ASEANTA	ASEAN Tourism Association
ASOEN	ASEAN Senior Officials on Environment
ASSIST	ASEAN Solutions for Investments, Services and Trade
ASW	ASEAN Single Window
ATR	ASEAN Trade Repository
ATIGA	ASEAN Trade in Goods Agreement

ATISA	ASEAN Trade in Services Agreement
AUN	ASEAN University Network
AVLRC	ASEAN Virtual Learning Resource Centre
AWGESC	ASEAN Working Group on Environmentally Sustainable Cities
B2B	Business-to-Business
B2C	Business-to-Consumer
BIMP-EAGA	Brunei Darussalam-Indonesia-Malaysia-Philippines East ASEAN Growth Area
CADP	Comprehensive Asia Development Plan
CBTP	Cross-Border Transport of Passengers
CCI	Coordinating Committee on Investment
CDIA	Cities Development Initiative for Asia
CIQ	Customs, Immigration, Quarantine
CLC	Centre for Liveable Cities
Customs DG	Meeting of the ASEAN Directors General of Customs
DGICM	Directors-General of Immigration Departments and Heads of Consular Affairs Divisions of the Ministries of Foreign Affairs
ERIA	Economic Research Institute for ASEAN and East Asia
ETI	Enabling Trade Index
GDP	Gross Domestic Product
GIH	Global Infrastructure Hub
GMS	Greater Mekong Subregion
GRP	Good Regulatory Practice
HAPUA	Heads of ASEAN Power Utilities Authorities
IAI	Initiative for ASEAN Integration
ICT	Information and Communications Technology
IISS	International Infrastructure Support System
ILO	International Labour Organization

IMF	International Monetary Fund
IMT-GT	Indonesia-Malaysia-Thailand Growth Triangle
IPPs	Independent Power Producers
IWT	Inland Waterway Transport
JETRO	Japan External Trade Organization
KPIs	Key performance indicators
LNG	Liquefied Natural Gas
LPI	Logistics Performance Index
LTSSWG	Logistics and Transport Services Sectoral Working Group
MAAS	Multilateral Agreement on Air Services
MAFLAFS	ASEAN Multilateral Agreement on the Full Liberalisation of Air Freight Services
MAFLPAS	Multilateral Agreement on the Full Liberalisation of Passenger Air Services
MPAC	Master Plan on ASEAN Connectivity
MRA	Mutual Recognition Agreements or Arrangements
MRC	Mekong River Commission
MSMEs	Micro, Small and Medium Enterprises
NC	National Coordinator
NDB	New Development Bank
NTMs	Non-Tariff Measures
NTOs	National Tourism Organisations
NTR	National Trade Repository
OECD	Organization for Economic Cooperation and Development
PFI	Project Finance International
PPP	Public Private Partnership
PQI	Partnership for Quality Infrastructure
RCEP	Regional Comprehensive Economic Partnership

ROO	Rules of Origin
RoRo	Roll-on/Roll-off
SAP	Strategic Action Plan
SEAMEO VOCTECH	Southeast Asian Ministers of Education Organization Regional Centre for Vocational and Technical Education
SEOM	Senior Economic Officials Meeting
SKRL	Singapore Kunming Rail Link
SMAC	Social-Mobile-Analytic-Cloud
SMART	Specific, Measurable, Actionable, Realistic, and Timely
SME	Small and Medium Enterprises
SOM-AMAF	Senior Officials Meeting for ASEAN Ministers on Agriculture and Forestry
SOME	Senior Officials Meeting on Energy
SOMED	Senior Officials Meeting on Education
SOMHD	Senior Officials Meeting on Health Development
STOM	Senior Transport Officials Meeting
STRACAP	Standards, Technical Regulations and Conformity Assessment Procedures
TAGP	Trans-ASEAN Gas Pipeline
TELSOM	Telecommunications Senior Officials Meeting
TPP	Trans-Pacific Partnership
TTR	Transit Transport Routes
STOM	Senior Transport Officials Meeting
TVET	Technical Vocational Education and Training
UNESCO	United Nations Educational, Scientific and Cultural Organization
UIS	UNESCO Institute for Statistics
WC-FINC	Working Committee on Financial Inclusion
WC-PSS	Working Committee on Payment Systems and Settlement
WTTC	World Travel and Tourism Council

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