



Framework on **ASEAN SUPPLY CHAIN EFFICIENCY AND RESILIENCE**





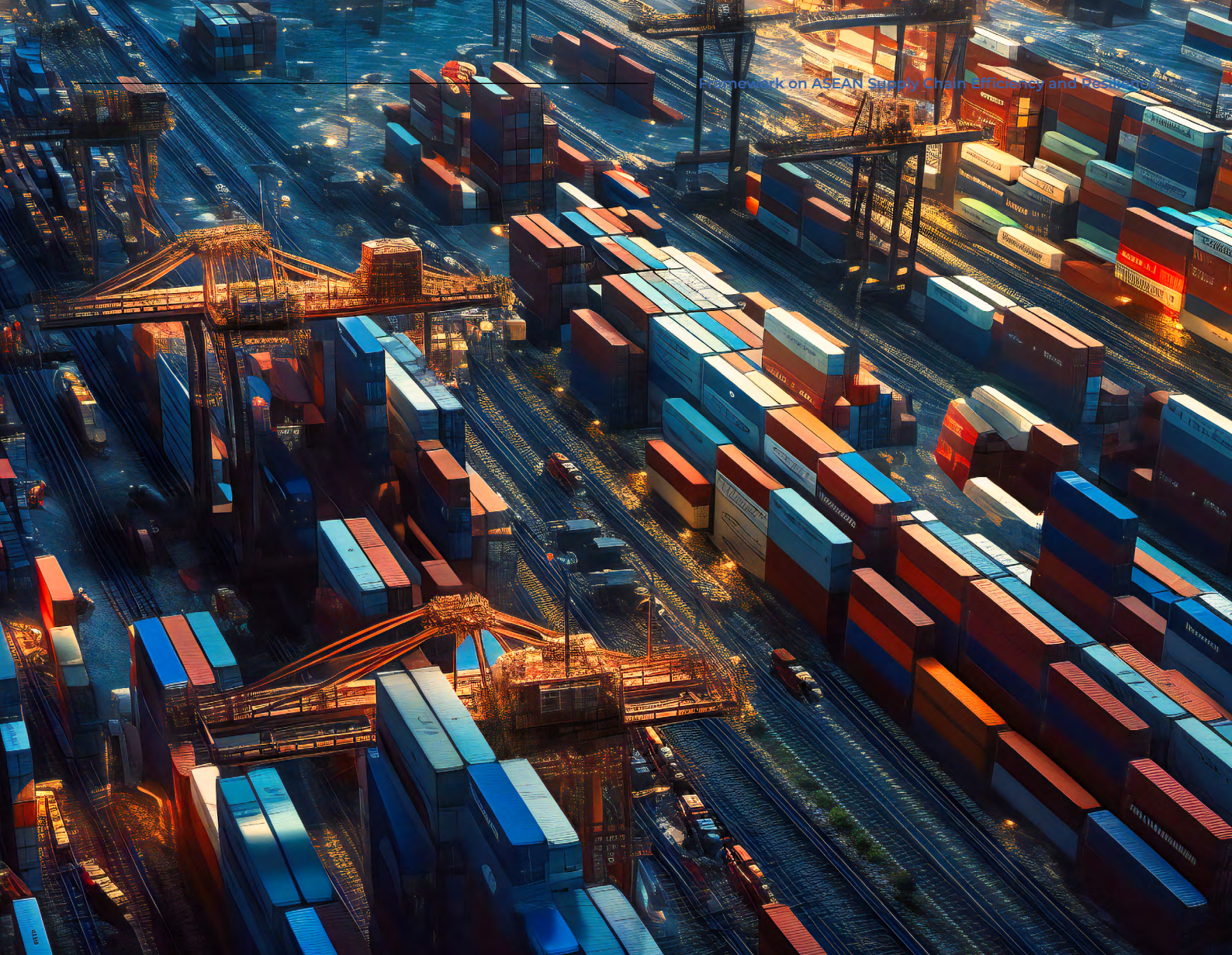
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FUTURES

The Framework on ASEAN Supply Chain Efficiency and Resilience and its Implementation Plan were developed with the support from the Australian Government through the Aus4ASEAN Futures Initiative.

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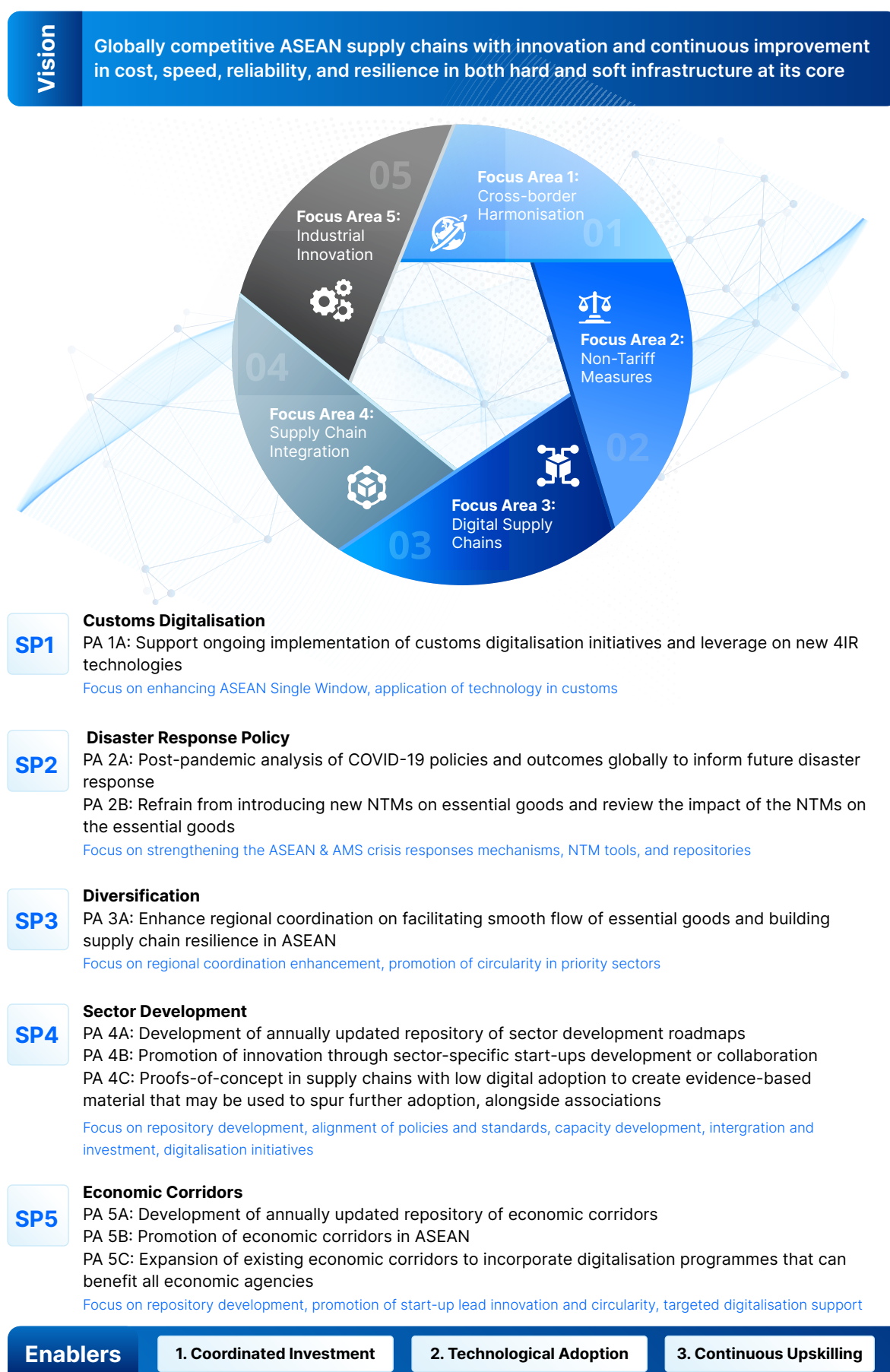
Executive Summary

The Framework on ASEAN Supply Chain Efficiency and Resilience (“Framework”) was developed as an initiative under the Strategic Area of Seamless Logistics of the Master Plan on ASEAN Connectivity (MPAC) 2025. It aims to enhance competitiveness of ASEAN, accelerate economic recovery during emergencies, and ensure sustainable economic growth despite disruptions.

The Framework identifies five focus areas which reflects possible intervention points within ASEAN supply chains to address bottlenecks related to policies, connectivity, and capacity to improve

and digitalise. Under each focus area, at least one strategic priority (“SP”) has been identified as the impetus to operationalise the Framework. To ensure key stakeholders can effectively implement the Framework, the strategic priorities are further dissected into priority actions (“PA”), initiatives, and activities. Each activity is furnished with timelines and relevant sectoral bodies in charge to ensure consistent progress and accountability. In addition, three enablers have been identified as essential building blocks that would aid in the implementation of the initiatives and activities.

Figure 1: Framework on ASEAN Supply Chain Efficiency and Resilience



1. Introduction

The Association of Southeast Asian Nations (“ASEAN”) has experienced remarkable growth over the past five decades, expanding by over 100-fold since its inception in 1967. By 2022, the combined GDP for all 10 ASEAN Member States (“AMS”) stood at an estimated USD 3.6 trillion¹, firmly establishing ASEAN as the world’s fifth-largest economy. Furthermore, the region’s total trade in goods and services reached USD 3.8 trillion and USD 933.6 billion² respectively in 2022, highlighting ASEAN’s pivotal role in the global supply chain. However, amidst diverse macroeconomic challenges, including geopolitical uncertainties, a volatile global economy, and the lingering repercussions of the COVID-19 pandemic, it is imperative for the region to prioritise the development of efficient and resilient supply chains to consolidate its

position in global value chains, and secure intra-regional supply chains among AMS in addressing unforeseen challenges, maintaining the continuity of operations and mitigating disruptions.

Enhancing supply chain efficiency and resilience requires intensive efforts from cross-sectoral coordination, particularly in adapting to immediate changes in both short and long term. The development of the Framework and its implementation plan were conducted with an intensive coordination and collaboration with over 20 ASEAN sectoral bodies as well as with national agencies responsible for planning, economic promotion, investment, and industry development. This collaborative approach underscores the multifaceted nature of supply chain connectivity.

¹ ASEAN Statistical Highlights 2023

² ASEAN Statistical Highlights 2023

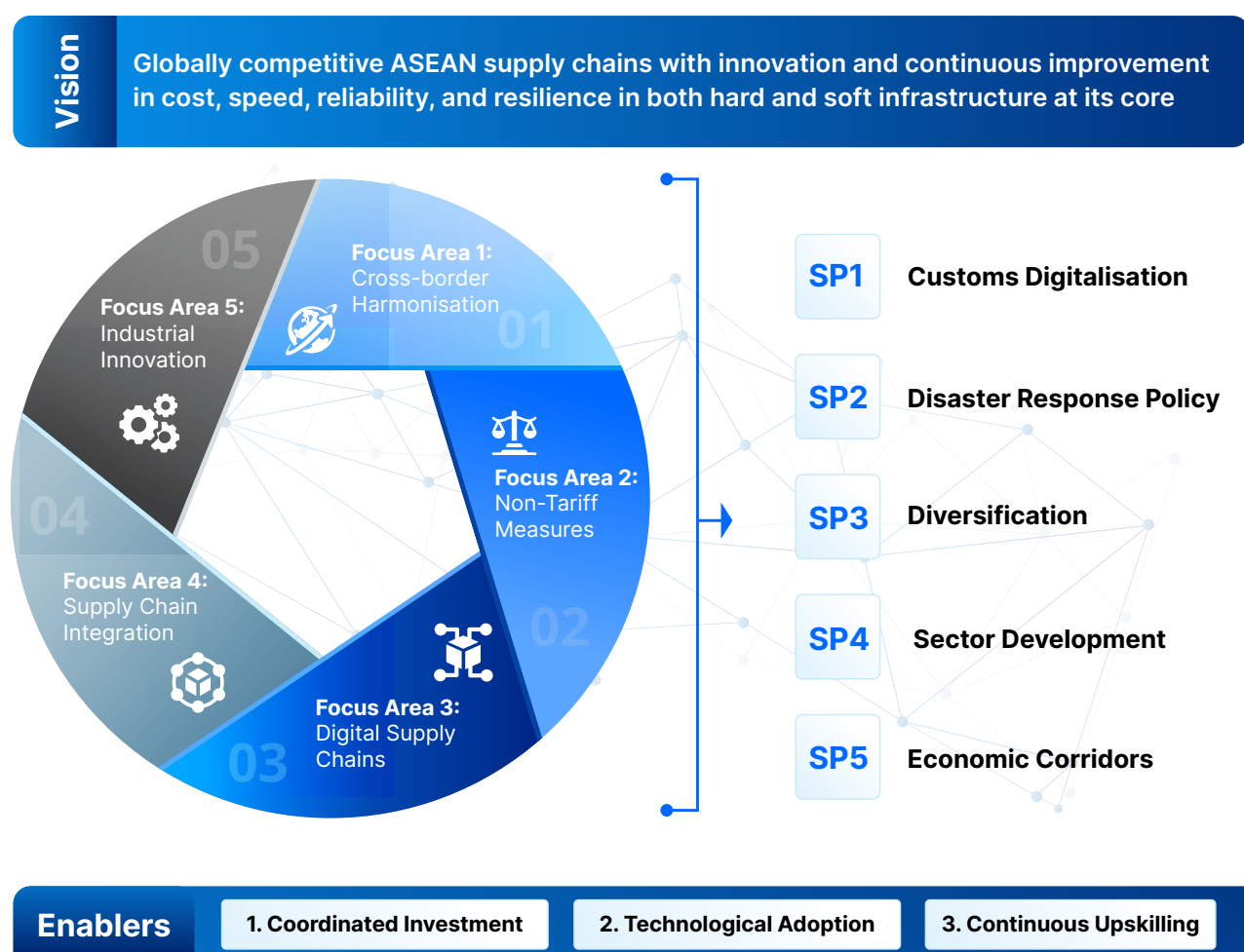


2. Framework on ASEAN Supply Chain Efficiency and Resilience

With the objectives of enhancing ASEAN's competitiveness by (1) lowering supply chain costs in each AMS, and, (2) improving speed, reliability and resilience of supply chains in ASEAN, the Framework comprises a vision, five focus areas,

five strategic priorities, with corresponding priority actions, initiatives and activities and three enablers; formulated based on a comprehensive supply chain analysis and validated through extensive consultations with AMS and ASEAN stakeholders.

Figure 2: Broad Overview of the Framework



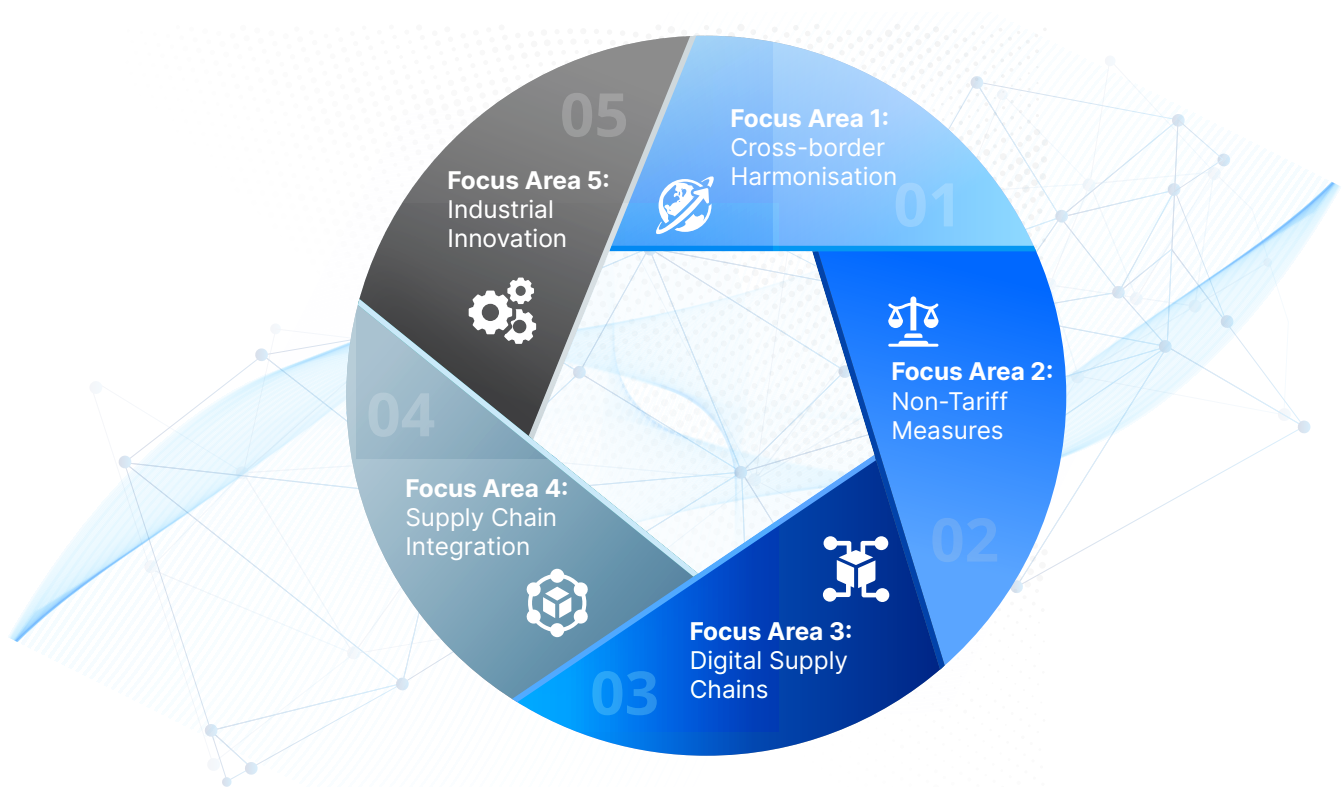
The vision statement encapsulates both hard and soft infrastructure to be key elements in developing globally competitive supply chains through innovation and constant improvements on aspects of cost, speed, reliability, and resilience. Efficiency and resilience converge through digitalisation, emphasising systems over physical assets. This transformation enables unified solutions and initiatives that concurrently address these objectives, using cohesive tools and strategies.

2.1 Focus Areas

The focus areas reflect the capabilities and priorities of key stakeholder groups contributing to the development of efficient and resilient supply

chains in ASEAN, including governments, suppliers, manufacturers, and logistics providers, among others.

Figure 3: Focus Areas of the Framework



Cross-border harmonisation is aimed at governments to harmonise commercial regulations and promote cross-border transactions across all transport modes (i.e., land, sea, air). Enhancing cross-border harmonisation will automate dataset matching and translation at trading gateways, speed up processing, cost cutting, increase supply chain resilience to trade disruptions and boost intra- and extra-ASEAN trade.



Non-tariff measures (NTMs) refers to policies beyond tariffs that economically impact international trade in goods. NTMs encompass facilitative measures and non-tariff barriers (NTBs) such as quantitative restrictions, technical regulations and custom rules. Minimising trade-distorting effects of NTMs will enhance supply chain efficiency, increases accessibility to essential goods during crisis and foster a globally competitive trading environment in the region.



Digital supply chains revolves around integrating Fourth Industrial Revolution (4IR) technologies into ASEAN logistics. This includes using electronic records, cloud-based applications, radio frequency identifications (RFIDs), and digitally transform supply chains. The paper-to-digital transformation shift aims to boost supply chain efficiency which is in line with ASEAN's vision for a resilient, inclusive, and globally competitive digital economy, outlined in the Consolidated Strategy on the Fourth Industrial Revolution for ASEAN.



Supply chain integration refers to the vertical integration of different supply chain components – from raw material production to distribution and consumption – into one single system. Supply chain integration can occur at two levels: (1) among companies within the same AMS and/or (2) among companies across AMS. The former foster better collaboration among supply chain participants, leading to more competitive products regionally and globally. The latter enable companies to leverage on different incentives within ASEAN and enhance seamless access to supplies, raw materials, and finished goods, thus boosting intra-ASEAN trade. Ultimately, the goal is to improve supply chain efficiency and resilience through enhanced information sharing, inherent in supply chain integration



Industrial innovation refers to the innovation that occurs within the manufacturing and processing of the product itself – meaning, outside of the inbound and outbound supply chains that sustain raw material transportation and intermediate/finished goods delivery. It targets intermediate and final goods processors and manufacturers, focusing on enhancing product performance, size, weight, handling, and durability to meet customer's demands. This ensures ASEAN products remain competitive by reducing costs, improving productivity, quality, and customer satisfaction.



2.2 Strategic Priorities, Priority Actions, Initiatives, and Activities

The Framework outlines five strategic priorities, serving as the driving force to operationalise the Framework. These strategic priorities are complemented by corresponding priority actions, initiatives and activities aimed at ensuring

effectiveness in implementing the strategic priorities. [Figure 4](#) provides an overview of the strategic priorities and its respective priority actions of the developed Framework.

Figure 4: Strategic Priorities and Priority Actions of the Framework

SP1

Customs Digitalisation

PA 1A: Support ongoing implementation of customs digitalisation initiatives and leverage on new 4IR technologies

SP2

Disaster Response Policy

PA 2A: Post-pandemic analysis of COVID-19 policies and outcomes globally to inform future disaster response.
PA 2B: Refrain from introducing new NTMs on essential goods and review the impact of the NTMs on the essential goods.

SP3

Diversification

PA 3A: Enhance regional coordination on facilitating smooth flow of essential goods and building supply chain resilience in ASEAN

SP4

Sector Development

PA 4A: Development of annually updated repository of sector development roadmaps.
PA 4B: Promotion of innovation through sector-specific start-ups development or collaboration.
PA 4C: Proofs-of-concept in supply chains with low digital adoption to create evidence-based material that may be used to spur further adoption, alongside associations.

SP5

Economic Corridors

PA 5A: Development of annually updated repository of economic corridors.
PA 5B: Promotion of economic corridors in ASEAN.
PA 5C: Expansion of existing economic corridors to incorporate digitalisation programmes that can benefit all economic agencies.



SP1

Customs Digitalisation

The strategic priority of customs digitalisation aims to enhance collaboration and harmonisation between regions by supporting ongoing implementation of customs digitalisation initiatives and leveraging on new 4IR technologies. The initiatives and activities identified include facilitating the enhancement of the ASEAN Single Window (ASW) and the National Single Windows (NSWs), and the application of advanced technologies in customs such as the release and clearance processes.

SP2

Disaster Response Policies

The disaster response policies strategic priority focuses on providing a comprehensive plan of action for policymakers to activate and implement during times of crisis by conducting analyses on the outcomes of past policies implemented. Efforts within this strategic priority prioritise on enhancing initiatives to improve responses to supply chain disruptions through the study of best practices as well as improving the socialisation and uptake of NTM tools/repositories to further support the private sector.

SP3

Diversification

The strategic priority of diversification aims to reduce supply chain vulnerability to disruptions by avoiding reliance on a single source or market through better regional coordination. Actions aligned with this strategic priority focus on enabling ASEAN businesses to diversify their regional production and demand markets through improved coordination and promotion of circularity.



SP4**Sector Development**

Sector development roadmaps are essential for coordinating public and private sector efforts during economic shocks, ensuring alignment on key priorities. Hence, the strategic priority for sector development focuses on identifying and addressing gaps or bottlenecks to enhance regional sector growth.

This strategic priority encompasses initiatives and activities that aim to develop a repository of sector development roadmaps in order to identify the top 3 priority sectors in the region for targeted developmental activities, enhance collaboration between start-ups, MSMEs and corporates to accelerate start-up led innovation and circularity across the supply chains, as well as demonstrate benefits of digitalisation through proofs-of-concepts in supply chains with low digital adoption.

SP5**Economic Corridors**

Economic corridors play a vital role in enhancing supply chain integration by creating interconnected infrastructure networks within a region, linking supply and demand markets. Additionally, they foster innovation partnerships that facilitate the transfer of technological expertise. Therefore, the strategic priority for economic corridors focuses on eliminating existing bottlenecks and advancing the development of these corridors within ASEAN.

Initiatives and activities within this strategic priority emphasise on providing a repository of economic corridors in ASEAN for stakeholders to have easy access in making informed decisions, fostering coordination among ASEAN economic corridors, enhancing operational capacity and capabilities of ASEAN economic corridors, enabling cross border value chains through promotion of integration and investment, and accelerating digital adoption within the economic corridors in ASEAN.



2.3 Key Enablers

Enablers

1. Coordinated Investment

2. Technological Adoption

3. Continuous Upskilling

Enablers are common themes observed across the focus areas and strategic priorities that will be crucial in working towards ASEAN's vision relating to supply chain efficiency and resilience. Each of the key enablers serves as a foundational building block per strategic priority and per priority action for all ASEAN supply chain stakeholders in achieving the region's vision towards efficiency and resilience.

Coordinated Investment focuses on coordination of financial investment in infrastructure, talent, and systems across cross-border and cross-sectoral initiatives, crucial for enhancing transparency and mobilising resources to improve efficiency and resilience in ASEAN supply chains.

Technological Adoption entails regional efforts to facilitate adoption of new supply chain technologies, sharing of best practices and partnerships with key technology providers for a more effective and efficient implementation benefitting all relevant public and private sector stakeholders.

Continuous Upskilling focuses on the people – more specifically talent availability, capacity, and capability – both at the design and implementation phases of any programme or initiative developed under each of the strategic priorities.



Annexes

A. List of Initiatives and Activities Identified

Table 1: Consolidated Framework Implementation Plan

Additional Note: The proposed sectoral bodies may be revisited based on relevant changes such as formation of new bodies that handle key emerging topics

Strategic Priority 1: Customs Digitalisation			
No	Initiatives	Activities	Sectoral Bodies
1.1	Facilitate enhancement of the ASEAN Single Window	1.1.1. Conduct business process analysis and needs assessment of NSWs to implement/support the next generation of ASW	Lead: ASWSC Support: ASW-TWG, SEOM
		1.1.2. Facilitate the efficient, sustainable and secure exchange of electronic documents through the enhancement of ASW	Lead: ASWSC Support: ASW-TWG, SEOM
1.2	Exploring the application of technology in customs to facilitate the release and clearance process	1.2.1. Explore the appropriate technologies to be considered in facilitating customs releases and clearance process in ASEAN, taking into account global best practices	Lead: ASEAN Customs DG, CCC, CPTFWG Support: ACCED, A4IR-TFG
		1.2.2. Support cross-border e-commerce cooperation in ASEAN to promote intra-ASEAN trade	Lead: ACCED Support: CPTFWG, CCC, Customs DG
		1.2.3. Pilot to estimate reduction in greenhouse gas (GHG) emissions on account of ASEAN Single Window implementation to promote climate smart trade facilitation	Lead: ASWSC Support: SEOM

Strategic Priority 2: Disaster Response Policies

No	Initiatives	Activities	Sectoral Bodies
2.1	Enhance initiatives to improve response to supply chain disruptions	2.1.1. Enhance information sharing and communication on ASEAN trade regulations as well as facilitate knowledge exchange on best practices with Dialogue Partners to proactively support private sector and strengthen crisis response	Lead: SEOM Support: ACCC, SOM
		2.1.2. Develop success stories and lessons learned for businesses (especially MSMEs) achieving supply chain and operational resiliency in selected industries to encourage businesses to reinforce their crisis response and business continuity plans	Lead: ACCMSME Support: ACCC, SEOM, ASEAN-BAC
		2.1.3. Full implementation of the Mutual Recognition Arrangement (MRA) for the Authorised Economic Operator (AEO) across all 10 AMS by 2025	Lead: SWG-AAMRA Support: CPTFWG, CCC
		2.1.4. Accelerate the full implementation of Categories B and C in CLMV countries	Lead: CPTFWG Support: CCC
		2.1.5. Explore a mechanism to establish reserves of specific goods, taking into account global best practices and strengthening local resource-based food and energy reserves	Lead: SEOM Support: ATF-JCC, SOM, STOM, SOMHD
		2.1.6. Publish harmonised ASEAN guidelines for ensuring physical movement of trucks and vessels as well as seamless port operations during emergencies	Lead: SEOM Support: ACCC, SOM, STOM
2.2	Enhance socialisation and uptake of NTM tools and repositories	2.2.1. Strengthen the socialisation of the ASEAN Tariff Finder (ATF) to the private sector through regular engagements to promote intra-ASEAN trade, enhance the utilisation of the ATIGA and ASEAN Plus FTAs, and support supply chain resilience	Lead: ATF-JCC Support: CCC, CCA, relevant sectoral bodies
		2.2.2. Encourage the private sector to continue to use the ASSIST platform to address bottlenecks	Lead: ATF-JCC Support: Relevant sectoral bodies
		2.2.3. Enhance the capacity of National Trade Facilitation Committees (NTFCs) to strengthen National Trade Repositories (NTRs), thereby promoting greater regional coordination and crisis preparedness.	Lead: ATF-JCC Support: CCC, CCA, ACCMSME, relevant sectoral bodies

Strategic Priority 3: Diversification			
No	Initiatives	Activities	Sectoral Bodies
3.1	Enabling ASEAN businesses to diversify their regional production and demand markets through enhanced regional coordination	3.1.1. Support the promotion of ASEAN platforms that facilitate intra-ASEAN business networking	Lead: SEOM Support: ACCC, ACCMSME, ATF-JCC, CCI, respective investment promotion/ economic development agencies
		3.1.2. Support ASEAN manufacturers and traders to integrate into global value chains and enhance preparedness for global regulatory changes by facilitating trade linkages through engagement with dialogue partners and business associations	Lead: SEOM Support: ACCC, CCI, respective investment promotion/ economic development agencies
		3.1.3. Promote public-private sector engagement to leverage the expertise of global traders to diversify the import sources and export markets and reinforce government capacity on procurement of supplies and risk management	Lead: SEOM Support: ACCC, CCI, ASEAN-BAC, respective investment promotion / economic development agencies
		3.1.4. Enhance utilisation of ACTS by raising awareness amongst private sector and explore possibility of expanding ACTS to rail transport	Lead: SWG-ACTS Support: CPTFWG, CCC
		3.1.5. Facilitate implementation and mutual recognition of the Unique Business Identification Numbers (UBIN) in ASEAN to promote cross-border trade	Lead: ACCMSME Support: CCI, ACCED, WC-FINC
3.2	Facilitate ASEAN supply chain integration and diversification through promotion of circularity in specific sectors	3.2.1. Conduct a pilot to promote circularity in specific sectors by leveraging on the Framework for Circular Economy for the ASEAN Economic Community	Lead: SEOM Support: FG-CE, ACCC, ACCSQ, ATF-JCC, CCA, CCI, respective investment promotion/ economic development agencies

Strategic Priority 4: Sector Development Roadmaps

No	Initiatives	Activities	Sectoral Bodies
4.1	Develop a repository of sector development roadmaps to enhance ASEAN's regional production capabilities	4.1.1. Identify the top 3 priority sectors for ASEAN and develop consolidated ASEAN level roadmaps for the priority sectors in the repository	Lead: SEOM Support: Relevant industry development agencies
		4.1.2. Facilitate private sector engagement to identify key gaps, possible incentives and subsidies required to encourage private sector participation and drive regional development of the priority sectors	Lead: SEOM Support: Relevant industry development agencies
		4.1.3. Identify opportunities to enhance circularity in the regional supply chains for the top 3 priority sectors (e.g. enhancing share of repurposed/ recycled raw materials)	Lead: SEOM Support: Relevant industry development agencies
4.2	Leverage on current ASEAN industry-specific initiatives and plans to promote start-up led innovation and circularity	4.2.1. Leverage on ASEAN Industrial Projects Based Initiatives (AIPBI), focusing on strategic sectors and market access including movement of people, goods, services, and capital, through a regulatory sandbox approach	Lead: SEOM Support: ACCMSME, ACCED, ADGSOM, other relevant sectoral bodies
		4.2.2. Collaborating with ASEAN sector specific associations to develop a cross-border innovation programme that incentivises tech start-ups for developing and commercialising innovative solutions	Lead: COSTI Support: SEOM, ACCMSME, ACCED, ADGSOM, ASEAN-BAC
		4.2.3. Consolidate innovative best practices implemented by private sector to publish and share good practices for adopting ESG principles	Lead: ASEAN-BAC Support: SEOM, ACCED, COSTI, ADGSOM
		4.2.4. Expand and promote uptake of sustainability and circularity courses in the ASEAN SME Academy by collaborating with business associations	Lead: ACCMSME Support: SEOM, ACCED, COSTI, ADGSOM

No	Initiatives	Activities	Sectoral Bodies
4.3	Demonstrate key benefits of digitalisation in supply chains with low digital adoption to accelerate supply chain efficiency and resilience	4.3.1. Leverage on the ASEAN Mentorship for Entrepreneurs Network (AMEN) to identify and mentor a cohort of ASEAN start-ups active in promoting digitalisation and decarbonisation in agriculture and food related supply chains	Lead: ASEAN-BAC Support: ACCMSME, SEOM, ACCED, COSTI, ADGSOM
		4.3.2. Consolidate success cases and disseminate key learnings around adopting a data driven digitalisation strategy in agriculture and food related supply chains in ASEAN through collaboration with relevant private sector stakeholders	Lead: ACCMSME Support: SEOM, ACCED, COSTI, ACCC, SOM-AMAF
		4.3.3. Expand digitalisation and e-commerce participation of MSMEs through public-private sector partnerships	Lead: ACCMSME Support: SEOM, ACCED, COSTI, ACCC

Strategic Priority 5: Economic Corridors			
No	Initiatives	Activities	Sectoral Bodies
5.1	Develop a repository of ASEAN economic corridors to enhance regional coordination on economic corridors related development initiatives	5.1.1. Leverage on existing databases to develop a centralised repository on economic corridors for visibility	Lead: SEOM Support: ACCMSME, ACCC, STOM, LIB-SI, ADGSOM, ACCED, ACSS
		5.1.2. Identify opportunities for enhanced coordination on infrastructure, transport and investment needs for economic corridors, including sub-regional cooperation	Lead: SEOM Support: CCI, ACCC, STOM, LIB-SI, ADGSOM, ACCED
		5.1.3. Update and upgrade the ASEAN Database on priority trade routes and product groups with training and capacity building provided for relevant stakeholders on updating and maintaining the database	Lead: SEOM Support: ACCC, ACCMSME, STOM, LIB-SI, ADGSOM, ACCED
5.2	Foster coordination and alignment of policies and standards among economic corridors in ASEAN	5.2.1. Develop good economic practices and guidelines to support the relevant economic corridor stakeholders	Lead: SEOM Support: ACCC, STOM, LIB-SI, ADGSOM, ACCED
5.3	Enhance operational capacity and capabilities of ASEAN economic corridors to increase the attractiveness of ASEAN as a global business hub	5.3.1. Implement capacity building programmes in ASEAN economic corridors, with the objective of training the economic corridors committees through targeted workshops and knowledge sharing sessions to promote and elevate these regions as prime destinations for investment	Lead: SEOM Support: ACCC, ACCMSME, STOM, LIB-SI, ADGSOM, ACCED

No	Initiatives	Activities	Sectoral Bodies
5.4	Promote integration and investment to enhance cross border value chains in economic corridors	5.4.1. Promote facilitation of movement of low value goods as well as express shipment across borders by exploring establishment of e-fulfilment and smart logistics centres in economic corridors in partnership with private sector ecommerce players	Lead: SEOM Support: ACCC, ACCMSME, STOM, LIB-SI, ADGSOM, ACCED
		5.4.2. Encourage creation of sub regional committees with representatives from provincial governments, national secretariats and private sector to identify priority programmes and promote awareness of economic corridors through workshops and forums	Lead: SEOM Support: ACCC, STOM, LIB-SI, ADGSOM, ACCED
		5.4.3. Implement pathfinder programmes to enhance value chain connectivity and upstream – downstream integration for priority sectors in economic corridors	Lead: SEOM Support: ACCC, ACCMSME, STOM, LIB-SI, ADGSOM, ACCED
5.5	Leverage on ASEAN digitalisation initiatives to accelerate digital adoption across ASEAN economic corridors	5.5.1. Leverage on the upcoming ASEAN Digital Economy Framework Agreement (DEFA) to identify relevant digitalisation initiatives and pilot studies applicable for economic corridors	Lead: SEOM Support: ACCC, ACCMSME, STOM, LIB-SI, ACCED
		5.5.2. Develop a digitalisation toolkit to support relevant stakeholders to prioritise digitalisation initiatives in ASEAN economic corridors	Lead: SEOM Support: ACCC, ACCMSME, STOM, LIB-SI, ACCED
		5.5.3. Collaborate with relevant stakeholders to establish mechanisms for capacity building and facilitate knowledge sharing and information exchange on adopting the digitalisation toolkit for economic corridors	Lead: SEOM Support: ACCC, ACCMSME, STOM, LIB-SI, ACCED

