

TRANSFORMING ADVERSITY INTO OPPORTUNITY

CATALYSING ASEAN'S GLOBAL VALUE CHAINS IN A POST-COVID WORLD



United Kingdom
Mission to ASEAN



ACCELERATED
COVID-19
ECONOMIC
SUPPORT
PROGRAMME

Table of Contents

- 01 Executive Summary**
- 02 Introduction to the ACES Programme in ASEAN**
- 04 Automotive:**
Gearing up for Success Amidst Global Transformation
- 07 Medical Technology:**
Prescribing a High-Growth Future
- 10 Textiles and Apparels:**
Dressing for a Value-Driven and Ethical Future
- 13 Consumer Electronics:**
Connecting ASEAN's Future as a Global Factory
- 16 Unlocking Value:**
Catalysing ASEAN's Opportunity in a Post-COVID World

Executive Summary

Global value chains (GVCs) reflect the modern, internationalised economy, where different stages of production processes are located across diverse countries and markets. With ASEAN's open economic outlook, GVCs provide a lucrative contribution to both trade and investment as major drivers of growth and jobs creation, particularly as a catalyst for industrialisation in emerging economies. ASEAN has placed deeper GVC participation as a key strategic requirement, and has made good progress on its commitments to date, especially in the area of the deepening regional value chain.

However, the unexpected outbreak of the COVID-19 pandemic in 2020 has created unprecedented challenges, with severe disruptions to both demand and deeply interconnected global supply chains. Non-essential goods were hit particularly hard, with regional demand dropping by as much as one-third for some GVCs. Production cuts and closures have placed millions of workers at risk. Recovery scenarios also vary across GVCs, with some having already rebounded while others prepare for a drawn-out recovery. In response, ASEAN member states have introduced a wide range of measures, varying substantially from liberalisation efforts to restrictions on trade, with the latter posing a potential risk to the progress made to-date by the region on GVCs.

While COVID is undoubtedly a defining disruptor of GVCs, it also creates an opportunity for ASEAN to reposition itself more competitively during the global reordering, emerging stronger than before the pandemic.

Responding to this period of adversity will require a holistic view of the challenges and opportunities that emerge from this crisis. It is vital to ensure the resilience of ASEAN's GVCs in a post-COVID world and protect vulnerable segments of the ASEAN community against the negative social and economic impacts triggered by COVID-19. The Accelerated COVID Economic Support Programme (ACES), funded by the FCDO, is designed to offer support surrounding this critical objective.

ASEAN will need to embrace an informed strategy designed to mitigate those impacts, particularly in the four focus industries central to this report — Automotive, Medical Technologies (MedTech), Consumer Electronics, and Textiles and Apparels. These diverse industries display some similarities in starting points, such as sharing key export markets in the EU, US and East Asia, and higher concentration in lower complexity segments. There is also a large vulnerable segment within them, including MSMEs and informal workers. An overview of the key imperatives across these four GVCs in the wake of COVID-19 include:

Automotive: Support cash-strapped suppliers and affected workers impacted by depressed demand over coming years, gear up for Automotive's transformation by capturing global EV component share, attracting supply chain shifts, and increasing intra-region trade to continue growing exports while doubling the number of SMEs in the ASEAN supply chain.

Textiles and Apparels: Catalyse upgrading of T&A sectors based on strong ethical and cost competitiveness considerations, while ensuring appropriate safety nets for workers, building towards five-fold ASEAN export growth, while tripling employment in areas with substantial female workforces.

Medical Technology (MedTech): Ensure robust health and safety protection for workers as suppliers meet rapid growth in demand, capitalise on demand trajectory and cost advantage to expand the medical consumables landscape while growing the ecosystem with a future-proofed workforce for the long term.

Consumer Electronics: Support build out of a regional ecosystem, fostering growth of a local supplier base and intra-regional connectivity through coordinated private and public sector investment, enhancing ASEAN's competitiveness and share of global supply chains, boosting exports and the portion of consumption served locally by ramping up regional production.

While nuances for individual sectors are evident, we have also observed a common set of cross-sectoral imperatives. These reflect interventions and actions which ASEAN can undertake as a regional bloc to steer a positive and sustainable rebound.

- **Continue to protect suppliers and workers** from demand surges or dips induced by COVID-19
- **Strengthen manufacturing capabilities** in current areas of strength and support growth in a post-COVID world
- **Facilitate sectoral upgrading** to move established industries into more sophisticated activities
- **Improve regional cooperation** to capitalise on complementarities and catalyse growth for emerging players
- **Focus on sustainable business practices** to align with global expectations and deliver long-lasting social impact to vulnerable segments in ASEAN

Introduction to the ACES programme in ASEAN



The Accelerated COVID Economic Support (ACES) programme is an initiative by the United Kingdom Foreign, Commonwealth and Development Office (FCDO) that seeks to support developing economies to tackle the complex impacts of COVID-19. It focuses on improving economic responses, complementing broader development by targeting specific outcomes.

For the ASEAN region, GVCs were chosen as a focus of the ACES programme. Further discussions with the ASEAN Secretariat reconfirmed the relevance and criticality of this topic during this time.

THE ESSENTIAL ROLE OF GVCs IN ASEAN

Trade has been a major driver of the ASEAN success story over the last four decades. ASEAN is now the third biggest trading bloc globally after the European Union and North American Free Trade Agreement. The recent signing of the Regional Comprehensive Economic Partnership (RCEP) will see ASEAN member states as a central part of the world's largest trade agreement upon its ratification in coming years.

Since the global outbreak in early 2020, COVID-19 has disrupted the short and mid-term outlook for ASEAN, accelerating existing macroeconomic trends impacting the region. Supply chain shocks have deepened emerging trends around shifting GVC landscapes, necessitating greater focus on supply chain diversification and resilience efforts, as well as adoption of transformative innovations in areas such as digital and automation technologies.

The negative implications on businesses and workforces, particularly MSMEs, has been severe. Falls in demand compounded by lockdown measures resulted in closures and production cuts. Worker layoffs and reductions in paid working hours posed a threat to livelihoods, especially for those who are informally employed with limited safety nets.

The pandemic has delivered a significant impact to trade flows, amplifying existing trends. Before COVID, more than 60% of global Chief Financial Officers (CFOs) surveyed were already planning to move supply chains to build resilience and reduce their overdependence on a single region.

The pandemic has accelerated these shifts, unlocking a potentially lucrative opportunity for the ASEAN region.

Despite this landscape of opportunity, there remain broad ecosystem challenges which must be addressed. These include transformation to Industry 4.0, supply chain shifts, and a growing global focus on more sustainable business practices. A related ethical focus must incorporate both the environmental and social concerns of buyers and markets, ensuring worker protection alongside environmental best practice.

The ACES-ASEAN report is focused on improving policy responses during essential transitions in the global value chain. It provides recommendations aimed at stimulating ASEAN's regional rebound from COVID-19, supporting a sustainable economic recovery that includes inclusive job creation, retention for vulnerable demographics, and resiliency improvements. Our work recognises the diverse economies in ASEAN, which individually and collectively are set to benefit from regional strategies on GVCs acting as a spark for emerging markets.

FOUR KEY SECTORS OF FOCUS

The four focus sectors identified in this report — Automotive, Medical Technologies, Consumer Electronics, and Textiles and Apparels — reflect core pillars of ASEAN's global value chains. These open global industries are critical to ASEAN's economy, contributing USD1.4 trillion to exports in 2019, roughly equal to 15% of ASEAN GDP. They grew at an average 5% annually between 2015 and 2019, sustaining jobs for more than 13 million workers.

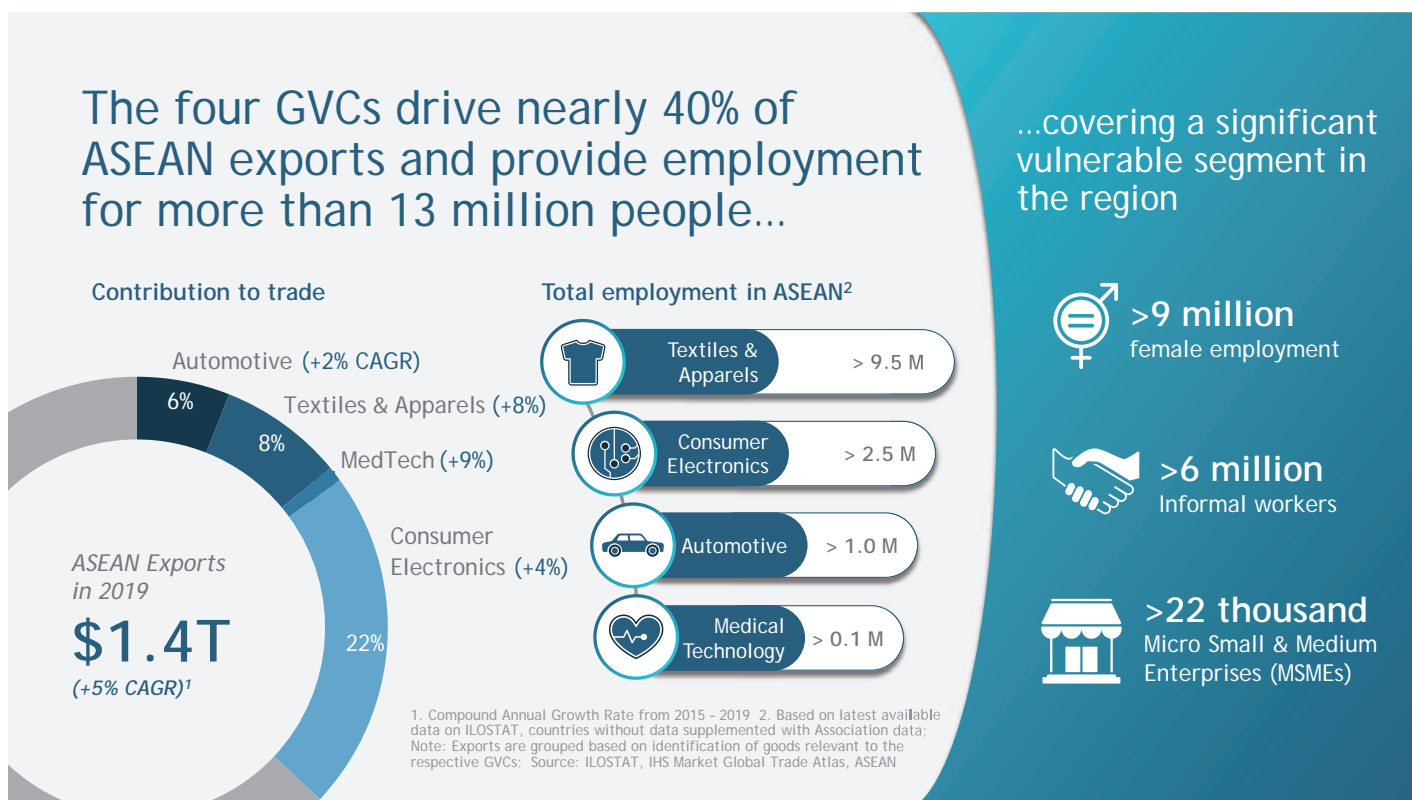
These sectors were identified as the focus of this work, with valuable input from the ASEAN Secretariat, for the following reasons:

- They offer a strong contribution to trade, and have been heavily affected by COVID-19
- They combine both large existing sectors, such as Automotive, Textiles and Apparels, and Consumer Electronics, with small but rapidly expanding sectors such as MedTech
- They are deeply integrated with global supply chains, and are thus vulnerable to disruptions
- They have a significant impact on employment, particularly in Textiles and Apparels, where there is a high representation of female workers and vulnerable groups such as low-skilled and informal labour
- They include a high representation of MSMEs, who are disproportionately affected by periods of subdued economic conditions due to cashflow challenges and limited financial resilience

This report aims to provide a fresh perspective through a multifaceted analysis of the impacts of COVID-19, and how those impacts influence and interact with existing long-term trends. It combines analysis of detailed macro-economic, trade, and industrial data, with focused engagement with industry stakeholders, ensuring both a qualitative and quantitative approach to our findings. It is designed to assess both the economic and social impacts of the COVID-19 pandemic, and build out informed recommendations on sustainable and future-proofed solutions that can deliver long-term benefits to the economies and labour forces of the region.

The report incorporates sector-specific insight from global industry experts, offering key learnings from recognised exemplars and success stories extracted from a wide range of geographies.

We have consolidated the findings to develop scenario models, building out robust scenario approaches around each of the GVCs – with the aim of sizing the potential impact and facilitating decision making.



Automotive: Gearing up for Success Amidst Global Transformation



ASEAN boasts a strong regional automotive industry, with manufacturing hubs in several key markets. In this analysis, we focus on automotive component production and assembly of light passenger vehicles, which make up the majority of automotive sales in the region.

Almost 80 percent of vehicles made in ASEAN are sold within the region, placing local demand before exports. There are currently over one million workers employed in the automotive manufacturing sector throughout the region.

PROTECT LIVELIHOODS OF WORKERS IN AUTOMOTIVE'S PROLONGED DOWNTURN

In recent years, the global automotive industry has been experiencing a major transformation driven by maturing markets, a transition in mobility, and the wider push towards more sustainable societies.

COVID-19 has suppressed global demand for automotive transport due to reduced purchasing power and limited need for travel. As a result, light vehicle sales have fallen by 34% across the region, more than the 16% global average. This impact is likely to persist if the widespread remote working continues.

On the production side, plants have mostly resumed operations, albeit at lower levels, and are likely to remain low. With the current scope of announced stimulus programmes and government support, recovery is projected by 2024. Global Original Equipment Manufacturer (OEM) layoffs have thus far been less focused on ASEAN, and primarily on low-growth markets such as the European Union (EU). However, these measures create a knock-on impact across GVCs, reducing paid hours for workers, with worrying potential impacts for smaller businesses with limited resilience.

ASEAN member states should continue their efforts to ensure the livelihoods of workers in this key sector are protected. This could include providing platforms for affected workers to find opportunities in adjacent industries such as electrical assemblies, fabrication, and others. Measures should be undertaken to support workers who are temporarily affected, enabling them to earn supplementary income through alternative sources in informal sectors such as ride-hailing.

SUPPORT CASH-STRAPPED SUPPLIERS TAKING THE BRUNT OF THE IMPACT

Global OEMs and suppliers have accelerated existing cost-cutting programmes in response to COVID-19, with reduced production in ASEAN sending a ripple effect down the value chain. This disruption and reduction in sales impacts the whole value chain, disproportionately affecting smaller businesses.

Local suppliers face cash flow challenges, with many reporting at most six months of cash reserves in the case of a crisis. This represents a major challenge in maintaining business continuity until a recovery that gains strength in 2022 and beyond.

Many OEMs have acted positively to keep suppliers afloat, providing advanced payments or renegotiated contracts. Despite these efforts, increased governmental support will be required to help suppliers with a robust recovery, positioning them to survive the challenging business environment expected post-COVID-19.

Governments should work to support auto suppliers through this period of suppressed demand, ensuring appropriate financial support through loan interest subsidies, wage subsidies, tax breaks, and other financial mechanisms. Coordination support can be provided for suppliers, enabling them to diversify into sub-sectors such as aftermarket parts, or two-wheeler vehicles. A platform for diversification could also include transition support for adjacent opportunities such as plastic injection for buoyant fast-moving consumer goods (FMCG) industries.

GEAR UP FOR GLOBAL ELECTRIFICATION OF AUTOMOTIVE

The transition towards sustainable transport is likely to accelerate following COVID-19. Electric Vehicle (EV) penetration is projected to achieve 18% of the total global vehicle fleet by 2030, driven by decreasing battery costs and a strong regulatory push, with uptake focused in leading markets such as the US, EU, and China.

The EV rollout, and wider electrification efforts of the energy transition, will reshape the global auto component supply chain. Batteries are expected to represent one-third of total EV component value. ASEAN is in a unique position to capture the value of this transition, with access to key minerals necessary for lithium-ion battery manufacturing. ASEAN should work to enable synergies between regional markets and industries to create a global EV hub. This can be supported by aligning the ambitions and visions of ASEAN members across various national EV blueprints, allowing individual nations to leverage their unique strengths as part of a coherent and coordinated regional strategy.

This strategy provides the opportunity to integrate strong adjacencies in Malaysia's and Singapore's electricity and electronics sector, ongoing electric vehicle research and development efforts in Thailand, and Indonesia's access to critical raw materials. ASEAN should work to conduct regional studies, particularly in the area of raw material sourcing for batteries, ensuring equitable development as part of a competitive and sustainable supply chain. Work

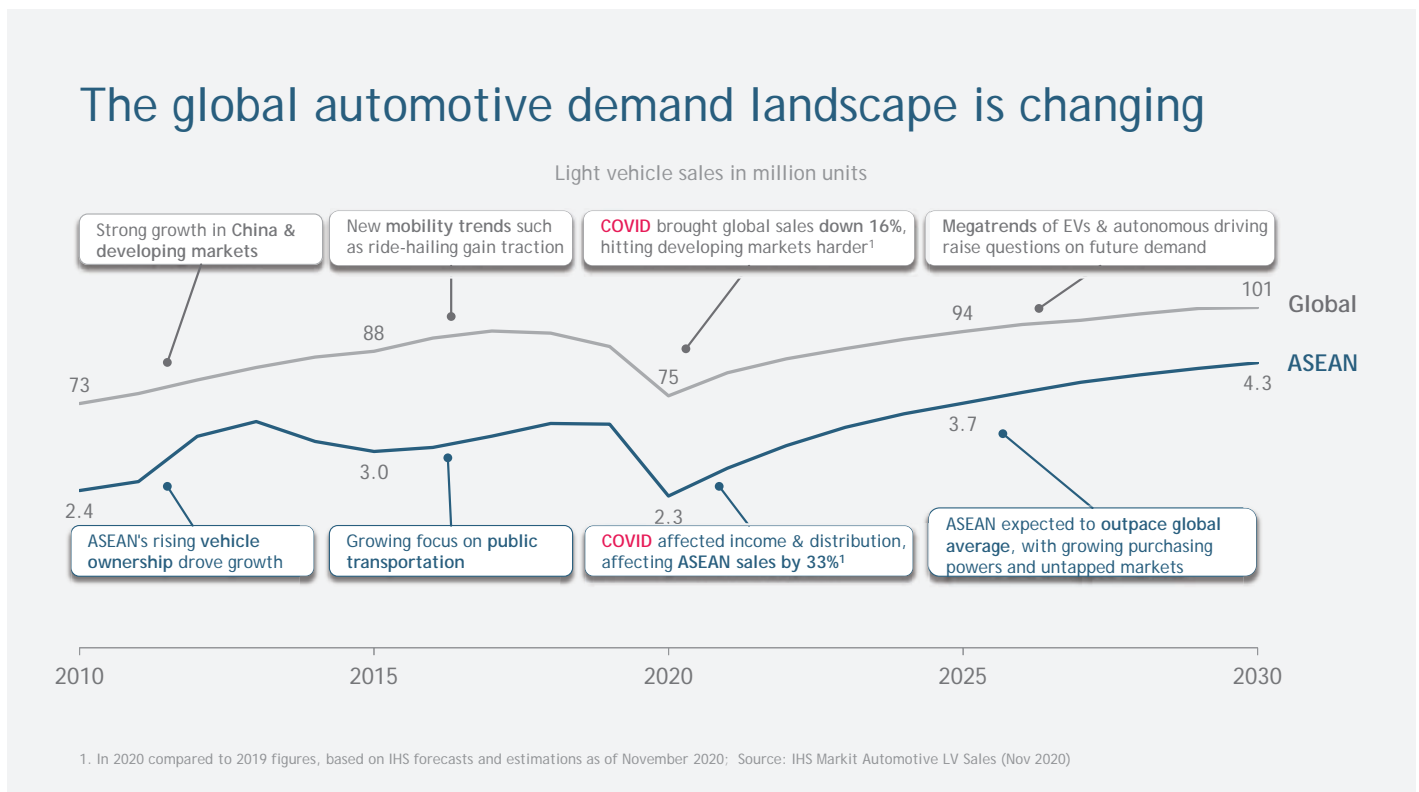
should also be undertaken to develop common sourcing for batteries, ensuring equitable development as part of a competitive and sustainable supply chain. Work should also be undertaken to develop common manufacturing standards and certifications, with a shared research and development burden, especially around critical constraints such as mineral extraction.

ATTRACT SHIFTS WITH A COMPETITIVE AND CAPABLE SUPPLY CHAIN

Rising manufacturing costs in hubs are triggering a global shift. This presents renewed opportunities for ASEAN manufacturers in leveraging cost-effective value propositions as an alternative manufacturing location.

COVID-19, has greatly accelerated a focus on supply chain resilience. Automotive OEMs are exploring alternative suppliers outside traditional regions to increase supply chain redundancies and provide backup suppliers. This adaptive approach is critical to the industry, as the lean nature of automotive manufacturing can suffer major disruptions in the event of just a single missing part. At the same time, global suppliers are diversifying their manufacturing locations to cater to OEM requests and reduce their exposure to future shocks.

ASEAN should work to be an attractive global partner as supply chains shift, building its workforce capabilities while increasing its cost-competitiveness. Investment incentives should be introduced, particularly around building next-level capabilities for suppliers in areas such



as Enterprise Resource Planning (ERP) systems and flexible manufacturing. Industry players should also look to leverage emerging Industry 4.0 capabilities which will help optimise efficiency and reduce costs.

Stakeholders should work to encourage the establishment of export bases in ASEAN through trade flow links, with key auto markets in Oceania, as well as high-growth opportunities in Africa, Middle East, and South Asia. At the same time, encourage an inflow of skilled global expatriates, while internationalising the local workforce.

STRENGTHEN REGIONALISATION

Continued cost pressures from the demand downturn, alongside increasing investment requirements for new technologies, are accelerating horizontal and vertical consolidation by suppliers. Having a single production facility to provide regional supply, leveraging the potential economies of scale in a challenging operating environment, is becoming an increasingly attractive proposition. However, OEMs face hurdles in serving ASEAN as a single market, with considerations around varying regulations and standards being the primary barrier. This results in retesting and redesigning for individual markets, which adds significant cost and time constraints.

ASEAN needs to work to increase intra-regional trade. This could include deepening harmonisation efforts across the region, creating shared standards that unify

ASEAN's automotive market. This harmonised market will make it a more attractive and globally competitive manufacturing location. Intra-regional market investments in critical infrastructure will also be critical in enabling access to emerging markets in ASEAN.

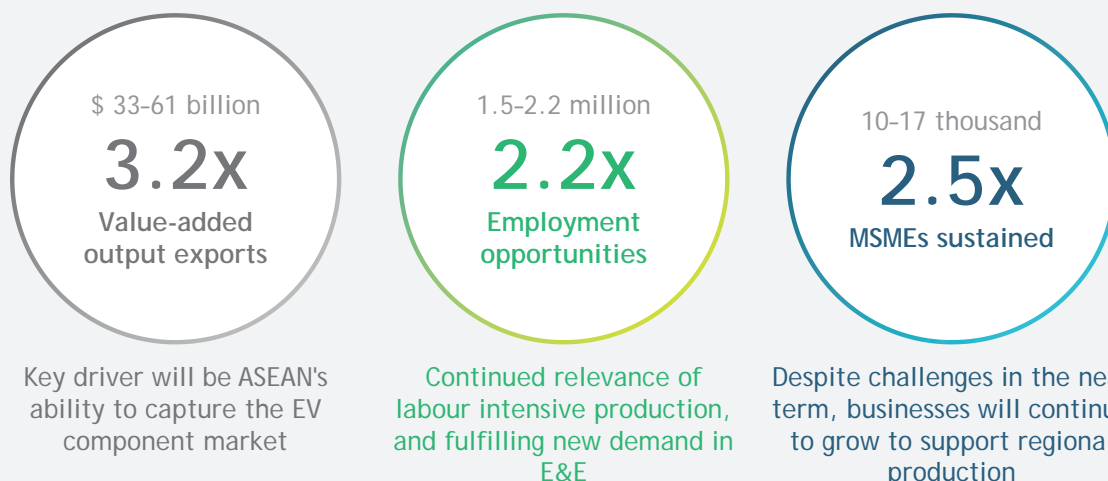
UPLIFT OPPORTUNITY IN AUTOMOTIVE: What ASEAN Automotive Can Achieve With The Right Interventions

ASEAN's automotive industry is expected to enjoy continued growth in both regional supply chain, as well as a global exporter. The potential for high-value exports in EV components will be an important driver in this expansion.

Employment opportunities in the industry could double by 2030, with a shift towards electrical, digital, and valuable advanced engineering skills. This provides the potential to increase equitable opportunity and drive forward social uplift of supply chain participants. This evolving economic opportunity is expected to drive end-to-end growth in the private sector, with benefits accrued by large corporations right down to MSME operators.

Strong outlook for growth in ASEAN Automotive

Uplift opportunity by 2030 in an optimistic policy implementation scenario across key areas



Note: As part of the ACES-ASEAN study, a scenario modeling exercise was conducted to estimate the potential implications of policy decisions on the GVCs. Numbers represented here are based on a scenario where (i) a base COVID recovery is expected, according to views formed as at November 2020 (ii) there is full implementation of policy enablers relevant to the GVC. The outlook may change as the COVID situation evolves, alongside geopolitical and industrial developments

Medical Technology: Prescribing a High-Growth Future



The Medical Technology industry (MedTech) is a promising high-growth industry for the ASEAN region, with significant potential to deliver expanding value over coming years. This MedTech analysis spans three product segments, from consumables (e.g. syringes, gloves, gauzes) to the more complex medical devices and equipment.

ASEAN's stronger MedTech segment is in medical consumables, with exports making up 5% of global sales. In comparison, ASEAN medical equipment and devices exports are just over 1% of global sales, with local demand met largely by imports.

ENSURE REGIONAL SUPPLY CHAIN RESILIENCE IN THE WAKE OF COVID-19

National lockdowns imposed to control the virus in the early stages of the pandemic caused significant disruption to the MedTech supply chain, both in access to labour and raw materials. This delayed access to MedTech products that were critical for treatment of patients during the pandemic.

Although supply chains have now rebounded and access has returned to reliable levels, this period of challenge highlights the need to plan ahead for potential supply chain shocks. This need is amplified by the impending rollout of global vaccination programmes, with high volumes of medical consumables such as syringes and personal protective equipment (PPE) required to deliver on these initiatives.

ASEAN should work to build regional supply chain resilience for this critical period and beyond, particularly as more MedTech companies start to operate across different countries in the ASEAN region. This strategy would benefit from a collaborative regional response to build cross-border access for the end-to-end MedTech supply chain, inclusive of products, components, raw materials, and labour.

PROTECT THE WORKFORCE IN THE MIDST OF THE DEMAND BOOM

Essential medical consumables and equipment such as PPE and ventilators have experienced a huge surge in demand, as nations raced to acquire the necessary equipment to fight the pandemic. More discretionary MedTech products experienced a slight reduction in demand, due to patient deferrals for elective procedures.

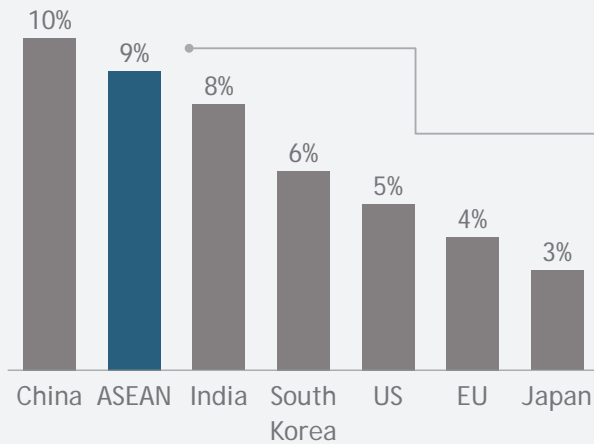
The huge demand rise for essential MedTech products has been a significant advantage for ASEAN, particularly for medical consumables. The value of the region's MedTech exports increased by 10%-20% across major global markets in the first half of 2020.

At the same time, it is crucial for ASEAN manufacturers to protect workers amidst the hike in demand as cluster outbreaks can disrupt the supply chain. For instance, a leading ASEAN PPE manufacturer had to temporarily shut down over two dozen plants due to infection clusters.

Ensuring robust health and safety protections is essential in maintaining supply of these critical products. Health and safety protocols should be enforced for all workforces to prevent potential outbreaks, protect workers, and avoid disruption to production. This could include elements like PPE provision, and adaptive rostering that follows virus contact protocols. A commitment to protecting workers will also offer long-term benefits in aligning with the sustainable social and ethical priorities of buyers in key markets.

ASEAN is one of MedTech's fastest-growing markets, outpacing large mature markets like US and EU

MedTech sales growth across key markets (CAGR¹ 2010-2025)



1. Compound Average Growth Rate; Source: FITCH solutions, Oxford Economics, WHO

Driven by ASEAN's large, aging, and increasingly health-conscious population

700 M
ASEAN
population by
2030

30%
Population
above 50
years old by
2030

70
Universal
Healthcare
Coverage
Index today

CAPITALISE ON HIGH-GROWTH MEDICAL CONSUMABLES OPPORTUNITY

ASEAN's position in the overall MedTech value chain is strongest in the medical consumables segment, with its exports comprising ~6% of global sales. The hike in global demand for medical consumables in response to COVID-19 has driven existing ASEAN manufacturing capacity to maximum production, enticing new players into the space.

Global MedTech firms are increasingly shifting high-volume, labour-intensive medical consumables manufacturing into emerging markets such as ASEAN, attracted by cost advantages driven by abundant resources as a key value proposition.

ASEAN should leverage this period of rapidly expanding global demand to cultivate a lucrative medical consumables landscape. This could include gearing up and supporting more ASEAN countries to enter the segment, adding to the regional value chain. Attracting new industry players with adjacent capabilities will deepen this opportunity, at the same time enabling existing players to expand and diversify their presence in the value chain.

Harmonised regulatory standards for MedTech are key to support this transition, allowing ASEAN to align and increase access to top export markets. Standards are imperative given the highly regulated nature of the sector. Efforts should also be undertaken to incentivise capital-intensive local manufacturing through tax, land, and utilities incentives.

BUILD LONG-TERM GROWTH IN ASEAN'S MEDTECH ECOSYSTEM

ASEAN's large and ageing population, coupled with increasing national universal healthcare coverage, will drive healthcare needs up significantly in the region over coming decades.

Healthcare needs remain largely underserved in the region, with the majority of medical equipment and devices demand met by imports. The diverse regulatory landscape currently poses challenges for region-wide market access, creating complexity and inefficiency for MedTech suppliers.

ASEAN should work to build up its MedTech ecosystem into more value-adding equipment and devices by increasing access for global players into the region. Increasing the ease of doing business with harmonised processes will be key, including streamlining administrative processes and regulatory frameworks. A strong regional investment promotion agency could be established to assist in navigating and networking across the member states.

Financial incentives to encourage both regional manufacturing and R&D should be considered in areas such as tax benefits or grants. Work should be undertaken to facilitate public-private partnerships that proactively address challenges in growing the sector.

Growing the talent pool through immigration enablement and scholarships in the short-term, and creation of standardised curriculums and qualifications in the long term, will

also offer a valuable opportunity. Lastly, ASEAN should develop a regional plan for ecosystem development, fostering synergies among member states based on their individual competitive advantages and opportunities.

UPLIFT OPPORTUNITY IN MEDTECH: What ASEAN MedTech Can Achieve With The Right Interventions

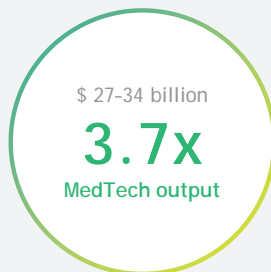
The MedTech industry offers a rapidly expanding opportunity for ASEAN's GVC growth, increasing domestic value add of exports and output nearly 4x by 2030. In addition, this fast economic expansion offers the potential to boost equitable workforce participation and opportunity through comprehensive health and safety procedures that protect workers while ensuring operational continuity. There are expected to be as many as 400,000 jobs within the industry by 2030, for which many of these roles represent more skilful and higher paying jobs. At the same time this creates the potential to uplift underrepresented workforce segments such as women, who could potentially make up 60% of the workforce by 2030.

Big growth potential for ASEAN Medical Technology

Uplift opportunity by 2030 in an optimistic policy implementation scenario across key areas



Expanding Medical Consumables will be key catalyst



Key driver will be ASEAN's ability to move up the MedTech value chain



Opportunity for more skilful and higher paying jobs



Potential for more women employment in the formal economy

Note: As part of the ACES-ASEAN study, a scenario modeling exercise was conducted to estimate the potential implications of policy decisions on the GVCs. Numbers represented here are based on a scenario where (i) a base COVID recovery is expected, according to views formed as at November 2020 (ii) there is full implementation of policy enablers relevant to the GVC. The outlook may change as the COVID situation evolves, alongside geopolitical and industrial developments



Textiles and Apparels: Dressing for a Value-Driven and Ethical Future

A SEAN has an established Textiles and Apparels industry, providing a strong platform to further develop the region's presence. Our analysis of textiles covers raw materials, fibres, yarns, and fabrics, and apparels covers apparels, clothing accessories, footwear and headgears.

While global demand in Textiles and Apparels has broadly stagnated over the past five years, ASEAN's share of global production grew from 5% in 2016 to 7% by 2019. The region has become an important part of the value chain, largely dominated by a focus on apparel, but faces a significant period of disruption in the wake of COVID-19.

PROTECT VULNERABLE WORKERS AND SUPPLIERS DURING PROLONGED DOWNTURN

A COVID-induced demand shock has been driven by weakened consumer spending, compounded by lower footfall in bricks and mortar retailers. The global shift towards work-from-home casual wear has resulted in a high cancellation rate for existing orders, triggering a subsequent halt to global supply chains in Textiles and Apparels.

The global apparel sector experienced a ~20% demand dip, with textiles falling by ~15%, in 2020. A robust recovery is not expected until 2023, and remains reliant on effective vaccine delivery and normalisation of social activities.

Major fashion brands continue to struggle with revenue and profitability in the current operating environment. The industry faces challenges with locked up inventory and liquidity risks for suppliers, especially MSMEs with less financial capital, resulting in reduced capacity or permanent closures for production facilities.

There are approximately 9.5 million workers employed in ASEAN's Textiles and Apparels industry, many of whom are women and informal workers. These represent a vulnerable section of the workforce, with temporary positions and no job security, creating a significant threat of income reductions or layoffs. Informal workers are also exposed to further challenges due to their lower access to social safety nets.

ASEAN should take steps to protect workers' livelihoods, at the same time supporting safe reopening for suppliers. Efforts should continue to provide social safety nets in areas such as healthcare, and immediate cash support, particularly for informal workers. Decision makers should continue commitments to fund programmes for safe factory reopening through measures such as subsidised PPE.

DRIVE APPAREL EXPORT GROWTH THROUGH ENHANCED PRODUCTION FACILITIES

COVID-19 has accelerated existing trends in a shifting global supply chain, amplifying ASEAN's potential to drive export growth. Rising wages in incumbent markets, combined with challenges highlighted by the COVID pandemic around a reliance on single supply base supply chains, are driving brands to reconsider their supply chain strategies.

A lack of alternative supply chain base with comparable scale and maturity has thus far prevented a comprehensive pivot by many major brands. Nevertheless, ASEAN managed to benefit from a small part of this shift due to the region's competitive wages, and a strong business environment enabled by its apparel base.

ASEAN should work to enhance its apparel production capabilities to drive export growth. This could include consolidation and specialisation, such as by product type, to drive economies of scale for a variety of product segments across the region. Strengthened partnership

and collaboration across the supply chain could improve speed and access to input materials.

A greater share of value from the apparel market can be captured through more advanced Industry 4.0 technologies, and environmentally-friendly manufacturing processes. This will not only improve productivity but enable the sector to better target and capture a greater share of higher value, upmarket apparel brands. These brands tend to place a higher emphasis on ethical and high-tech clothing, with social and environmental sustainability a key part of their brand proposition.

BUILD STRONGER UPSTREAM TEXTILE CAPABILITIES TO SERVE GROWING REGIONAL DEMAND

ASEAN apparel production has outgrown textile production at a rate of 3:1 over the past five years. The region is currently concentrated around labour-intensive cut, make, trim activities in the value chain, while relying on imports for capital-intensive input materials such as textiles. Most ASEAN states are net exporters of apparel, but remain importers of textiles.

While local textile production has grown, the existing manufacturing capacity is largely focused on lower quality textiles that are unsuited for use in global brands' apparel manufacturing. These import needs mean that ASEAN has low self-sufficiency, limiting the speed and flexibility of apparel manufacturing — a key sourcing requirement of global brands.

ASEAN should work to build out strong textile capabilities to serve growing regional demand. This should be supported through a conducive trade and foreign direct investment (FDI) environment that attracts foreign textile firms, enabling knowledge transfer of world-class best practice. Investments should facilitate the creation of enabling infrastructure such as water treatment facilities, or vocational colleges to develop workforce capabilities. R&D focus should be driven by both industry and academia to develop textile-related innovation in key areas such as sustainable materials and optimised manufacturing processes.

CAPITALISE ON SUSTAINABLE FASHION TRENDS THROUGH ETHICAL AND COST-COMPETITIVE MANUFACTURING

While sustainability remains an important driver of brand choices, social and labour aspects represent more immediate influences on decision makers beyond environmental concerns. This is driven by consumer pressures and evolving regulations in major markets like the US and EU.

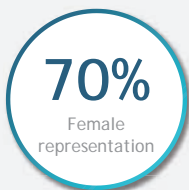
Despite these growing buyer pressures, ethical considerations often do not supersede cost considerations for the mass-market segment. It is particularly difficult for suppliers, especially those smaller players, to remain cost-competitive while implementing appropriate sustainability measures.

Social responsibility is top priority in Textiles & Apparels

Employment covers a large and vulnerable population in ASEAN...



More than
10 million
T&A workers in ASEAN



Source: International Labor Organization, Expert interviews

...with growing concerns on their welfare along the sourcing process

"On top of cost-effectiveness, our ideal suppliers would meet international ethical standards, especially on human rights"
- Global fashion retailer

"As social responsibility is a criteria in RFPs from all major players today, non-compliant suppliers will be dropped from our supply chain"
- Global trading house

"Implementing sustainability initiatives are difficult when buyers control terms & cost. Smaller suppliers can't afford to comply."
- ASEAN apparel manufacturer

While some ASEAN nations are performing well on ethical standards, these efforts are not ubiquitous throughout the region. ASEAN could implement measures that shift it towards becoming the go-to destination for ethical and cost-competitive textiles and apparels manufacturing. Undertake efforts to foster co-investment between governments and businesses to meet buyers' ethical requirements in areas such as fire safety protocol, workers' health and safety, and training, while easing cost pressures on suppliers. At the same time, work to facilitate holistic labour practices with harmonised regulation, pushing for more formal employment and enforcement of minimum wages.

UPLIFT OPPORTUNITY IN TEXTILES AND APPAREL: What ASEAN Textiles & Apparels Can Achieve With The Right Interventions

ASEAN has the potential to unlock significant socio-economic gains by pursuing policies that grow exports and total industry employment. Beyond these growth ambitions, a concerted effort to drive forward ethical manufacturing could improve indicators on sustainable business practices such as number of formal workers earning at and above minimum wage — improving the lives of workers and their families.

While the direct economic impact from implementing ethical manufacturing policies may be smaller than other policy interventions, it nonetheless offers a powerful platform to drive gains in social empowerment and equitable opportunity, and enhances the attractiveness of regional operators for major global brands.

ASEAN Textiles & Apparels to continue strong growth

Uplift opportunity by 2030 in an optimistic policy implementation scenario across key areas



With continued growth in global apparel exports and strong push towards serving the regional textile demand



The textiles and apparels sector will remain a major contributor to employment opportunities



Key sector to provide steady income and alleviate poverty



Textiles and apparels production will be a key driver for increasing inclusion of women in the workforce

Note: As part of the ACES-ASEAN study, a scenario modeling exercise was conducted to estimate the potential implications of policy decisions on the GVCs. Numbers represented here are based on a scenario where (i) a base COVID recovery is expected, according to views formed as at November 2020 (ii) there is full implementation of policy enablers relevant to the GVC. The outlook may change as the COVID situation evolves, alongside geopolitical and industrial developments



Consumer Electronics: Connecting ASEAN's Future as a Global Factory

ASEAN has a vibrant Consumer Electronics industry, offering solid foundations to build out the region's competitive advantage. Our analysis of Consumer Electronics covers four broad categories of goods — portable electronics, in-home entertainment, computers and peripherals, and in-car entertainment, with portable electronics comprising over half of the total industry value.

ASEAN's share of global exports has remained relatively consistent over the last decade at approximately 15% of the total, second only to China at 28%. ASEAN's activity is concentrated largely in the subassembly step of the value chain, an area with relatively lower complexity and lower margin output. However, the region is a significant player in the GVC, producing 80% of the world's hard drive supplies, making it an integral part of the global ecosystem.

ACT DECISIVELY TO REBOUND FROM THE IMPACT OF COVID

The impact of COVID-19 on the consumer electronics industry has been relatively moderate compared to other sectors, with an overall demand dip of 6% in 2020. Many ASEAN suppliers and electronics manufacturing services (EMS) have managed to mitigate this downturn by reducing shifts and working hours, retaining staff for the imminent recovery while preserving cash reserves during the period of crisis.

The deferral of discretionary consumer spending and reduction in demand of items such as smart home products has been largely offset by the need for remote working technology to enable the global work-from-home shift. ASEAN consumer electronics demand has been resilient during this period, up 1% overall for the year. This is driven by a huge influx of first-time internet users in the region, with approximately 40 million new users driven online due to demand for digital services (e.g. e-commerce, online payment and food delivery) during COVID-19 shutdowns.

ASEAN EMS and manufacturers should prepare for a robust recovery, with global demand expected to rebound fully in 2021. This will be heavily influenced by work-from-home as a persistent trend following COVID-19, while extended confinement continues to influence more active entertainment purchases.

SUPPORT WORKERS FOR RESILIENT OPERATIONS

The consumer electronics industry is a major employer in the region, with over 2.5 million workers, many of whom are women. Female participation is generally concentrated in direct labour roles on the factory floor, reflected by lower skills and lower pay. Although there are a higher number of "formal" workers than in other sectors in the region, at slightly over 50% of the workforce, there are still a significant number of informal workers. Due to this dynamic, ensuring safe opening procedures for those without access to social safety nets and affordable healthcare should be a priority.

At the same time, governments and decision makers should take steps to provide robust safety nets for informal or lower paid workers, especially around affordable healthcare support as reopening occurs before full containment of the pandemic. These measures will be of particular importance to vulnerable worker groups in an industry with a female-dominated labour force.

BUILD OUT ROBUST ECOSYSTEM TO MEET REGIONAL DEMAND

Regional sales are growing at four times the rate of global sales, creating a growing regional demand that today's production capacity is unable to meet. In addition, ASEAN players are largely focused on exports, creating a shortfall within the region, with local production currently only accounting for 29% of local demand.

Building out local production capacity to meet regional demand offers a lucrative opportunity. This should be a key priority for industry players, supported by upskilling industry workers to expand activity along the value chain. This build out of capacity and increasing coverage in the steps along the value chain will enable ASEAN to capture more value from final products sold locally.

Governments and policy makers should consider introducing incentives to support the build out of local suppliers and the EMS base to foster this opportunity. The diversity of the region's infrastructure should also be considered, creating investment incentives that focus on the particular needs and demands of individual local ecosystems, supporting the raising of infrastructure standards across the board to facilitate ease of movement regionally.

BOOST MARKET SHARE DURING GLOBAL SUPPLY CHAIN SHIFTS

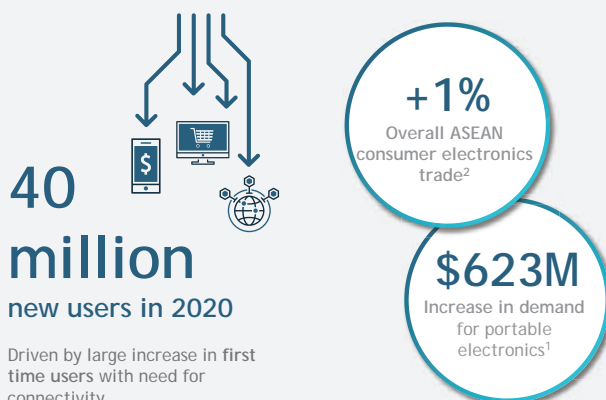
Rising costs and growing focus on supply chain resilience are causing a shift in global supply chains. ASEAN is well positioned to capture greater value from this global shift, leveraging its existing manufacturing base and low labour costs. Many of the region's key manufacturing industries already operate with competitive economics, and increasing skill levels will enable ASEAN to build on this success in higher value parts of the supply chain.

ASEAN's broad range of free trade agreements provides a further regional advantage, boosted by strong global connectivity through regional hubs, and contributing to the region's meaningful edge compared to other low-cost manufacturing hubs in South Asia.

Despite these advantages, there remain gaps for ASEAN to fill in order to maximise its efficacy in competing with mature manufacturing ecosystems. Regional players should invest in Industry 4.0 capabilities to improve productivity, reinforcing cost competitiveness. In addition, governments should consider investment incentives to grow the local supplier base, helping to spur the development of an effective and integrated ecosystem. Upskilling the workforce will once again be a key factor, enabling ASEAN to not only capture greater shares of global volumes in existing activities, but also expand along the global supply chain.

Consumer Electronics in ASEAN is faring well today, with a bright future ahead

ASEAN demand for consumer electronics has remained resilient through the pandemic...



...supported by promising prospects post-COVID to capture long-term trends

-  **Supply chain resilience**
Strong ability to scale up manufacturing
-  **5G and shift to industry 4.0**
Digital maturity & workforce skill level
-  **Shorter product lifecycle**
High degree of connectivity to global systems
-  **Rising consumerism**
Rapidly growing middle-class & affluent consumers

1. ASEAN demand, projected for FY 2020; 2. Percentage of ASEAN total exports to top markets; Source: Statista, Euromonitor, Expert Interviews

LEVERAGE SIGNIFICANT 5G GROWTH POTENTIAL

5G is set to be a major catalyst of global economic opportunity, projected to drive 7.4% of global GDP growth over the next five years. While the near-term value of 5G is more modest, primarily linked to mobile phone rollout, emerging novel use cases are likely to substantially boost that potential in the longer term.

Unlocking the greatest value from 5G adoption will require significant infrastructure investment around the area of network availability. Facilitating public-private sector and cross-industry collaboration will be critical in covering the high up-front costs. Telecoms companies are likely to be the drivers of significant early investment, but other industries will benefit as this infrastructure expands.

ASEAN's consumer electronics industry should invest in enhancing regional positioning as a precursor to capturing a greater value share as the manufacturing opportunity expands along with use cases. Government and policy makers should work to support the creation of a network, providing a foundation for innovation that will grow the industry opportunity even further.

UPLIFT OPPORTUNITY IN CONSUMER ELECTRONICS: What ASEAN Consumer Electronics Can Achieve With The Right Intervention

If these measures are implemented, ASEAN has the potential to significantly expand its share of the global value chain in Consumer Electronics. This provides the opportunity to drive female employment in the region, while also driving a 1.8x uplift in total employment.

Today, the majority of the workforce is drawn from outside the region creating an additional opportunity to enhance local participation in the industry and maximise ASEAN-based value. While local workers have traditionally viewed manufacturing as undesirable, efforts by nations such as Malaysia to promote Industry 4.0 and the opportunity for technical skill-building present in the space are looking to address this.

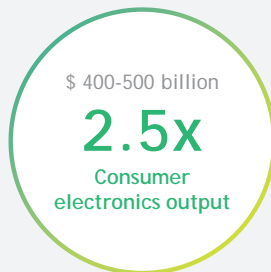
The potential to capture a greater share of a substantial existing value base represents a key opportunity for the region. Leveraging this global shift could significantly uplift domestic value add generated from the industry.

Stable growth for ASEAN Consumer Electronics

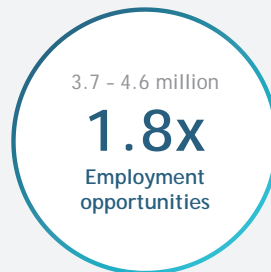
Uplift opportunity by 2030 in an optimistic policy implementation scenario across key areas



Capturing relocating volume from established manufacturing bases will be the catalyst



Key driver will be ASEAN's ability to increase the share of local demand served in-region



Opportunity for more skillful jobs with the increasing adoption of Industry 4.0



Potential for more female employment in increasingly skilled labour

Note: As part of the ACES-ASEAN study, a scenario modeling exercise was conducted to estimate the potential implications of policy decisions on the GVCs. Numbers represented here are based on a scenario where (i) a base COVID recovery is expected, according to views formed as at November 2020 (ii) there is full implementation of policy enablers relevant to the GVC. The outlook may change as the COVID situation evolves, alongside geopolitical and industrial developments

Unlocking Value: Catalysing ASEAN's Opportunity in a Post-COVID World

The turbulent months of 2020, and its impact on ASEAN nations, demonstrates the urgent need to build resilience in the region's GVCs from both an economic and social perspective. ASEAN now faces a critical crossroads in efforts to accelerate COVID recovery, while capturing the greatest possible long-term value from deepening trends in existing global supply chain shifts. Recognising these trends will be imperative in creating future-proof jobs that are more resilient to an evolving global landscape.

As has been demonstrated in this analysis of ASEAN GVCs, the region faces an unprecedented opportunity following this period of adversity, with significant potential to regain greater share of global value.

While the four sectors identified reflect diverse industries with unique challenges, there are a number of unifying imperatives which cut across these sectors in steering for the rebound to come.

- **Continue to protect suppliers and workers from demand surges or dips inspired by COVID-19** until the recovery is embedded, offering fiscal support and a social safety net for workforces. Maintain appropriate health and safety protocols to protect vulnerable workers from accelerated demand in industries such as MedTech.
- **Strengthen existing manufacturing capabilities to support growth in a post-COVID world** to capture value growth in a shifting supply chain landscape. Upgrade technologies to leverage Industry 4.0 opportunities as key enablers to optimise productivity.
- **Facilitate sectoral upgrading to more complex segments in each distinct element of the global value chain to enhance the value captured by ASEAN**, especially in areas of opportunity such as quality textiles and medical device production. Reskill workers while redeveloping R&D capabilities and incentivising knowledge transfers in upgrading GVC potential.
- **Improve regional cooperation to strengthen ASEAN's competitiveness globally.** Cooperation, consolidation, and specialisation can enable economies of scale, while harmonised standards can reduce wastage and redundancies in sectors.
- **Focus on sustainable business practices across sectors to future-proof GVC growth** in response to growing pressures from consumers and investors in key markets around social and environmental issues. Support ASEAN suppliers to implement social and environmental initiatives that enable the region to proactively address buyers' concerns.

Cooperation among ASEAN member states will be fundamental in harmonising responses to these recommendations, ensuring a cohesive and coordinated approach for ASEAN. Steer by an overarching regional body could play an important role in catalysing these cross-sector imperatives. A regional body could facilitate and convene relevant stakeholders, highlighting the regional GVC agenda while brokering discussions between key parties. It would be positioned to influence and advocate for change, steering member states to adopt relevant policies. It could also create awareness in the wider region, nurturing positive public opinion and providing an informed basis for engagement. Ultimately, it could help enact relevant measures, by legislating on specific trade-related policies that progress the shared benefits of the GVC agenda.

Beyond this ASEAN level analysis, follow-up studies which deep dive into the unique challenges and potential for individual member states will be key to ensure targeted efforts through more detailed country-specific analysis. Decision making should also be facilitated through a fact-based approach, supported by robust analytical tools. This is increasingly important in a volatile and uncertain post-COVID recovery, and a demonstration of this has been made through the development of the ACES-ASEAN GVC visualisation tool.

2020 has presented an unwelcome and challenging year for the nations of the region. But by leveraging the spirit of cooperation on which ASEAN was founded, it is positioned to rebound stronger from this period of adversity. This is an opportunity for the region to act in partnership, unlocking significant value in a future-proof and sustainable global trade. This period of crisis has shown that rapid response can be an important avenue to success. That same imperative should guide ASEAN in its efforts to embrace the remarkable opportunity of the evolving global value chain.

As part of the ACES-ASEAN programme, a visualisation tool for the GVC scenario models was built. You can access it here: <http://bit.ly/ACESASEANGVCTool>



You will have access to dynamic dashboards for the 4 GVCs covered in the ACES-ASEAN programme

Additional Sources

A number of supporting sources were utilised to inform this study, including, but not limited to: International Labor Organization, World Health Organization, Fitch Solutions, Oxford Economics, IHS Markit, Statista, Euromonitor, UN Comtrade, EIU Industry Reports, EMIS Insights, BofA Global Research.

Acknowledgement

This programme would not have been possible without the contributions of our partners from the UK Mission to ASEAN, UK-ASEAN Business Council, and Boston Consulting Group. We also thank the ASEAN Secretariat for their inputs. Perspectives and insights from the participating private sector representatives, think tanks, and respective country authorities were also invaluable to our work.

Disclaimer

ACES is a project of the UK's Foreign, Commonwealth and Development Office ("FCDO"), with contribution and input from the Boston Consulting Group ("BCG"). This document is solely for use by FCDO and not intended for any other purpose. This document is for information purposes only and in no way advocates your taking or not taking any particular course of action. BCG disclaims any and all representations, warranties and liability with regard to the document's accuracy, completeness or applicability to any third party seeking to rely upon its contents. By your access to and review of these materials you agree, to the fullest extent permitted by law, that neither BCG nor the FCDO has any liability to you and you waive any and all rights and claims you may have at any time against FCDO or BCG with regard to these materials. This material has been funded by UK aid from the UK government; however the views expressed do not necessarily reflect the UK government's official policies.



United Kingdom
Mission to ASEAN

