MINISTRY OF
INVESTMENT, TRADE AND INDUSTRY

iESG

NATIONAL INDUSTRY ENVIRONMENTAL, SOCIAL & GOVERNANCE FRAMEWORK

Phase 1.0: "Just Transition"

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Foreword by YB Minister of Investment, Trade and Industry

Due to mounting global challenges related to climate change, social equity and governance, the world has evolved towards more sustainable practices. Just as Environmental, Social and Governance (ESG) becomes a global moral imperative, the MADANI Economy framework, too, aims for Malaysia's economic growth to be balanced against inclusivity, fairness and justice for key stakeholders.

The manufacturing sector plays a significant role in the nation's growth, being the second-largest contributor, at 24.2 percent to the nation's gross domestic product (GDP), and 84 percent to total exports in 2022. Hence, non-compliance with ESG principles will have serious repercussions for Malaysia vis-à-vis access to global supply chains and markets, many of which are becoming increasingly ESG-sensitive. MITI also perceives the embracing of ESG principles as key towards building industry and supply chain resilience, as well as in achieving a more equitable and inclusive economic prosperity as outlined in the New Investment Policy (NIP) and recently launched New Industrial Master Plan 2030 (NIMP2030).

To that end, our manufacturing industry players must be supported to adapt and evolve to meet current global ESG requirements. It is on this premise that MITI has crafted the inaugural National Industry Environmental, Social and Governance Framework (i ESG Framework) and the first phase of its implementation via this i-ESG Framework 1.0 (2024 – 2026), to guide and support Malaysia's manufacturing sector towards embracing ESG, and in strengthening Malaysia's economic leadership in Southeast Asia.

The i-ESG Framework is a key enabler of MITI's commitment towards sustainable and responsible manufacturing in Malaysia, as outlined in NIMP2030's Push for Net Zero mission. The i-ESG's four key components are aimed towards providing invaluable guidance for industry players, especially for Micro, Small, and Medium Enterprises

(MSMEs), on how ESG principles can be systematically and seamlessly integrated into their operations.

The i-ESG Framework 1.0 is premised on “Just Transition”, and a commitment to inclusivity to ensure that no one is left behind in the pursuit of sustainability objectives. It lays the groundwork for and fosters the development of a robust ecosystem to help Malaysian manufacturers embark on their ESG journey, ensuring their readiness to meet the increasingly rigorous demands of Phase 2.0 (2027 – 2030).

Within these pages, MITI presents the importance of ESG as global supply chain and market requirements, together with strategies tailored to our unique national context. Serving as both a compass and a call to action, it will guide companies not only on ESG-compliance and its inherent benefits to society and the environment, but also on managing business risks, improving competitiveness, and building long-term resilience.

I would urge all those in the Malaysian manufacturing sector to utilise this framework as a guide towards embracing ESG principles to drive positive change in their businesses. By doing so, they will not only contribute to a more secure and prosperous manufacturing ecosystem, but also contribute to Malaysia's ESG targets, including decarbonising our economy, and achieving net zero greenhouse gas (GHG) emissions as early as 2050.

My sincere gratitude to everyone who has been involved in and contributed to bringing the i-ESG Framework to fruition. Let us be inspired by the potential for transformation and begin our whole-of-nation action towards shaping a better, more sustainable and more resilient future for the manufacturing sector in Malaysia.

Tengku Zafrul Aziz
Minister of Investment, Trade and Industry

Preface by Secretary General of Ministry of Investment, Trade and Industry

The Ministry of Investment, Trade and Industry (MITI) has consistently striven to make Malaysia as the preferred investment destination and competitive trading nation through sustainable industrial ecosystem. The recently launched New Industrial Master Plan 2030 aligned with the National Energy Transition Roadmap are expected to accelerate the industry transformation in propelling Malaysia as a regional economic powerhouse. A key factor for creation of new growth opportunities embedded within these policies are our commitment to address climate change by striving for a net-zero future.

To this end, relevant building blocks for the adoption of sustainable practises are being rolled-out with the Environmental, Social and Governance (ESG) framework being at the core of it. In recognising the significance of manufacturing sector to the nation's GDP, providing employment for 2.7 million individuals, MITI is embarking on a drive to equip the industry with ESG adoption know-hows to ensure a resilient and environment-friendly growth. It is a fact that compliance to the ESG principles have become pivotal for businesses to remain competitive, and most importantly able to fulfil the environmental requirements of our trading and investment partners.

The i-ESG Framework has adopted a comprehensive and forward-looking approach by taking into consideration the prevailing business environment. It is built upon four (4) pillars which comprise of standards, financing, capacity building and market mechanism. 17 strategies, 50 deliverables, and 6 key enablers in this Framework serve as guidance for the industry to embrace ESG practises for the benefit of the industry and in turn contribute to the economy.

The i-ESG Framework seeks to facilitate an effective transition toward sustainable practices while balancing the needs and capabilities of all stakeholders. This Framework is a call to engage, learn and embrace sustainability which it is not the end, but a mean of doing business. An important aspect in this Framework is the self-readiness assessment (i-ESGReady), a tool to assist companies understand and evaluate their current ESG adoption level. For those initiating the journey, the i-ESG starter kit will lead you through the process of integrating sustainability information into reporting while continue to enhance the adoption of sustainable practices into operations. For those at an advanced level, especially large and transnational companies, we urge you to lead the way for the stakeholders along your supply chain to ramp up their ambitions in embedding ESG practices into their businesses.

Considering the various levels of readiness across the industry, the Framework adopts a two-phased approach, consisting of the initial phase known as “Just Transition” spanning from 2024 to 2026, followed by the second phase, “Accelerating ESG Practices” extending over 2027 to 2030. On this note, I would like to record my appreciation to all the multi-stakeholders that have been fundamental in contributing input and constructive feedback to MITI in arriving at this i-ESG Framework. It is my profound hope that this Framework will be the guiding tool for companies in the manufacturing sector to transition into a more environment-responsible business landscape for long term sustainability.

As the industry embarks on this journey, it is imperative to acknowledge that change begins with individual choices and extends to collective efforts. The ever-evolving economic landscape bear stressing that sustainability and ESG practices are no longer an option but a necessity for manufacturing industries to stay relevant in the global supply chain. Sustainability vision and goals have to be seamlessly integrated into an organisation’s business strategy, practices and culture. The path may be challenging, but in the long run, the benefits will surely outweigh the initial cost.

Welcome onboard the exciting journey to a sustainable manufacturing.

Hairil Yahri Yaacob
Secretary General of the Ministry of Investment, Trade and Industry

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Acronyms and Abbreviations

3Rs	Reduce, Reuse and Recycle
12MP	Twelfth Malaysia Plan
APEC	Asia-Pacific Economic Cooperation
BNM	Bank Negara Malaysia
BRR	Business Review Report
BUR	Biennial Update Report
CBAM	Carbon Border Adjustment Mechanism
CCPT	Climate Change and Principle-based Taxonomy
CCS	Carbon Capture and Storage
CDSB	Climate Disclosure Standards Board
CPI	Carbon Pricing Instruments
CSR	Corporate Social Responsibility
CSRD	Corporate Sustainability Reporting Directive
DOE	Department of Environment
DOSM	Department of Statistic Malaysia
E&E	Electrical and Electronics
EC	European Commission
EE	Energy Efficient
EMB	Environmental Management Bureau
ESG	Environmental, Social and Governance
ESRS	European Sustainability Reporting Standard
ETS	Emission Trading System
EU	European Union
EUR	euro
EV	Electric Vehicle
FIs	Financial Institutions
GDP	Gross Domestic Product
GGP	Government Green Procurement
GHG	Greenhouse gas

GITA	Green Investment Tax Allowance
GITE	Green Income Tax Exemption
GRI	Global Reporting Initiative
GSEP	Government Sustainability Engagement Programme
GTMP	Green Technology Master Plan Malaysia
GW	gigawatt
HRDC	Human Resource Development Corporation
i-ESG	Industry Environmental, Social and Governance
IFC	International Financial Cooperation
IIRC	International Integrated Reporting Council
INTAN	Institut Tadbiran Awam Negara
IOAs	Investment Opportunities Areas
IR4.0	Industrial Revolution 4.0
ISSB	International Sustainability Standards Board
MaaS	Mobility as a Service
MDG	Market Development Grant
MGTC	Malaysian Green Technology And Climate Change
MIDA	Malaysian Investment Development Authority
MITI	Ministry of Investment, Trade and Industry
MOF	Ministry of Finance
MOSTI	Ministry of Science, Technology and Innovation
MSMEs	Micro, Small and Medium Enterprises
MyRER	Malaysia Renewable Energy Roadmap
NACP	National Anti-Corruption Policy
NAP	National Automotive Policy
NAPFL	National Action Plan on Forced Labour
NDC	Nationally Determined Contribution
NEP	National Energy Policy
NETR	National Energy Transition Roadmap
NGOs	Non-Governmental Organisations

NHRAP	National Human Rights Action Plan
NIMP	New Industrial Master Plan
NIP	New Investment Policy
NRECC	Ministry of Natural Resources, Environment and Climate Change
NWRP	National Water Resources Policy
NxGV	Next Generation Vehicle
OECD	Organisation for Economic Co-operation and Development
PLCs	Public Limited Companies
PwDs	Person with Disabilities
R&D&C	Research and Development and Commercialisation
RE	Renewable Energy
S&P	Standard and Poor’s
SASB	Sustainability Accounting Standards Board
SC	Securities Commission
SDGs	Sustainable Development Goals
SMECorp	SME Corporation Malaysia
SMEs	Small and Medium Enterprises
SRI	Sustainable and Responsible Investment
SSM	Suruhanjaya Syarikat Malaysia
TCFD	Task Force on Climate-Related Financial Disclosures
TIP	Trafficking in Person
TNB	Tenaga Nasional Berhad
UN	United Nations
UNDP	United Nations Development Programme
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNFCCC	United Nations Framework Convention on Climate Change
UNGC	United Nations Global Compact
UNGP	United Nations Guiding Principles on Business and Human Rights
UNITEN	Universiti Tenaga Nasional
US	United States

USD	US dollar
VCM	Voluntary Carbon Market

Executive Summary

In today's business landscape, sustainable development has become a fundamental element for organisations worldwide. This shift is driven by the recognition of the importance of Sustainable Development Goals (SDGs) and Environmental, Social and Governance (ESG) practices in achieving long-term success and making a positive impact on economy, environment and society.

SDGs are vital as they provide a global framework for addressing pressing societal and environmental challenges. They serve as a roadmap for governments, businesses and organisations to work together in areas such as poverty alleviation, clean energy, climate action and equality. Aligning with 17 Global Goals not only demonstrates a commitment to social responsibility but also enhances a company's reputation and competitiveness in a rapidly changing world.

Meanwhile, ESG is crucial for businesses because it focuses on key areas of sustainability. ESG encompasses environmental factors (E), such as reducing carbon emissions and conserving resources; social factors (S), including diversity, employee well-being and community engagement; and governance factors (G), such as ethical leadership and transparent corporate governance. Prioritising ESG helps companies mitigate risks, attract responsible investors, improve operational efficiency and build trust with stakeholders. Nevertheless, several challenges, particularly for the Micro, Small and Medium-sized Enterprises (MSMEs), hinder the adoption of ESG practices. These includes lack of awareness; exertion in understanding the complex ESG policies and regulations; difficulties to identify, manage and quantify ESG risks comprehensively; additional cost to organisation with the adoption of new technology and skills training; as well as existence of various competing standards and frameworks.

Hence, to effectively address these challenges and drive the widespread adoption of ESG practices, the i-ESG Framework has been meticulously crafted. This framework envisions a manufacturing sector that is economically prosperous, environmentally sustainable and socially equitable. It stands as a significant initiative within the New Industrial Master Plan 2030, strategically aligned with Mission 3: Push for Net Zero. Within the i-ESG Framework, a comprehensive approach unfolds across 17 strategies and 50 associated deliverables, categorised under four (4) components: standard, capacity building, financing and market mechanisms.

The Framework adopts a phased approach, with its initial Phase 1.0 "Just Transition" scheduled from 2024 to 2026. During this phase, the focus is on heightening awareness, delivering training and providing financial support, with a particular emphasis on assisting MSMEs to embark on their ESG journey. The Framework also covers public sector through the Government's Sustainability Engagement Programme (GSEP) which plays a pivotal role in fostering awareness and understanding among government officials. It is anticipated that this initiative will lead to more unified and informed decisions concerning sustainability and ESG-related matters.

Within Phase 1.0, essential deliverables of the i-ESG Framework include providing starter kit for sustainability reporting, streamlining disclosure processes into a centralised platform and offering incentives for the adoption of digital tools to calculate carbon footprints and greenhouse gas (GHG) emissions. Furthermore, companies will have the opportunity to perform a self-readiness assessment before embarking on their ESG journey thus enabling them to assess their current state and readiness.

Additionally, the establishment of digital matching platforms for financing and Corporate Social Responsibility (CSR) programmes aims to efficiently connect suppliers/providers with customers/recipients, amplifying the impact of ESG efforts. Studies on the design of carbon pricing mechanisms will further support the government's initiatives, including meeting requirements related to the Carbon Border Adjustment Mechanism (CBAM), thereby expanding export markets. Meanwhile, the SDG Investor Map seeks to attract investments aligned with the United Nations' SDGs by identifying specific investment opportunity areas (IOAs), promoting sustainable economic growth and development. To ensure the success of these strategies, six (6) enablers, including stakeholder engagement, digitalisation, technology, financing and incentives as well as policies and regulations, will be integral in fostering a sustainable and equitable manufacturing sector. The second phase (Phase 2.0) of the Framework, scheduled between 2027 and 2030, is geared towards accelerating ESG practices. Strategies for the Phase 2.0 will be carefully crafted to align with both national and international ESG requirements.

In essence, this comprehensive Framework, guided by a phased approach and supported by multiple initiatives, is poised to transform the manufacturing sector into a thriving, sustainable and socially responsible business, contributing significantly to the broader mission of achieving net-zero emissions and the 17 Global Goals.

Chapter 1: Introduction

1.0 Sustainability in Global Perspective

Transforming the world: The 2030 agenda for sustainable development…

Sustainable development is defined as the development that meets the needs of the present without compromising the ability of future generations to meet their own needs.[1] In 2015, 193 countries set the Sustainable Development Goals (SDGs) that consist of 17 goals, 169 targets and 248 indicators to achieve a better and more sustainable future for all.[2] The blueprint provides a coherent, holistic and integrated framework for addressing the most urgent global sustainable challenges such as protecting the environment; tackling climate change; ending poverty and hunger; reducing inequalities; improving access to healthcare and education; as well as building strong institutions and partnerships.

The SDGs encompass 3 models of global sustainable development, namely:

a. economic growth;
b. social inclusion; and
c. environmental protection.

Benefits of achieving SDGs:[3]

a. expected to generate at least USD12 trillion worth of market opportunities by 2030;
b. unlock 50 percent of the value of business opportunities in developing countries; and
c. create 380 million jobs by 2030, almost 90 percent of which would be in developing countries.

Figure 1.1: Sustainable Development Goals

Source: United Nations.

[1] Brundtland Report of the World Commission on Environment and Development, 1987.
[2] SDG Indicators, Global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development.

[3] Better business, Better World, Business and Sustainable Development Commission, 2017.

1.1 Environmental, Social and Governance

ESG is here to stay…

In early 2004, the then United Nations (UN) Secretary-General, Kofi Annan laid the foundation of Environmental, Social and Governance (ESG) Principles. He approached over 50 Chief Executive Officers of major financial institutions to collectively deliberate the cause of sustainable businesses. The objective of this joint initiative was to find ways to integrate ESG into mainstream capital markets.[4] The term ESG was first coined in 2004 in a landmark study entitled "Who Cares Wins" conducted by the United Nation Global Compact (UNGC) and the International Financial Cooperation (IFC) to examine the role of ESG value drivers in asset management and financial research.[5] In a nutshell, ESG is all about how companies respond to climate change; treat their workers; build trust and foster innovation; and manage their supply chains.

Table 1.1: Components of ESG[6]

Environment	Social	Governance
• Emission management • Energy management • Waste management • Water management • Biodiversity • Pollution	• Labour practices • Migrant workers • Working conditions • Employee relations and diversity • Gender equality • Training • Health and safety • Local communities	• Anti-corruption and bribery • Board diversity and structure • Regulatory policies • Whistle blowers • Data privacy and security • Supply chain management • Executive remuneration

[4] Boffo, R., and R. Patalano (2020), "ESG Investing: Practices, Progress and Challenges", OECD Paris, www.oecd.org/finance/ESG-Investing-Practices-Progress-and-Challenges.pdf.
[5] Who Cares Wins, IFC Advisory Services in Environmental and Social Sustainability, 2004 – 2008.
[6] Five ways that ESG creates value, McKinsey Quarterly, 2019.

1.2 Benefits of ESG

Over the years, businesses have changed their priorities and mission statements. This paradigm shift can be seen where historically businesses value physical assets such as property, equipment and machinery, however in the recent times the value has shifted largely to intangible values such as reputation, corporate culture and customer loyalty.[7] Companies attempt to integrate ESG into the way they do business and design their business model and strategy. Some of the benefits of ESG include:

1.2.1 Internal

a. Set vision and strategy - a well-executed ESG strategy can provide the basis for greater public relation opportunities which can lead to revenue growth and new partnerships;
b. Improve performance - to keep up with ESG programmes, companies must track key metrics such as energy consumption, raw material usage and waste treatment that can eventually lead to reduced energy bills and cost;
c. Manage risks - companies will have a more accurate assessment of any potential long-term risks. This helps them to make more informed decisions, ensuring they are better prepared for unexpected events or unexpected changes in the market; and
d. Motivate employees - a strong ESG proposition can help companies attract and retain quality employees, enhance employee motivation by instilling a sense of purpose and increase overall productivity.

1.2.2 External

a. Build reputation and trust - companies that demonstrate commitment to ESG are seen as more ethical, reliable and trustworthy in the eyes of customers, leading to better customer loyalty and a favourable reputation in the market;
b. Attract capital - the inclusion of ESG components in non-financial reporting is trending among businesses. Investors and lenders are becoming highly attracted to organisations that invest in ESG and use ESG disclosures to shed light on their sustainability efforts;
c. Strengthen stakeholder engagements - companies have strong relationships with stakeholders such as customers, employees, investors and the wider

[7] Zumente, I.; Bistrova, J. ESG Importance for Long-Term Shareholder Value Creation: Literature vs. Practice. J. Open Innov. Technol. Mark. Complex. 2021, (*7*), 127.

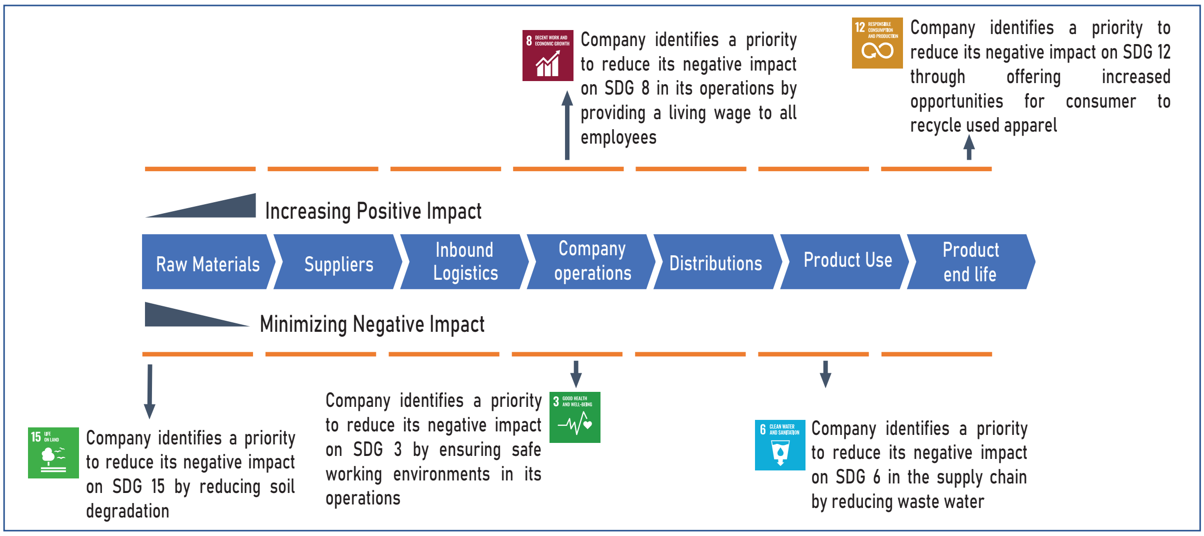
community as they understand their impact on society and take responsibility for it; and

d. Comply with regulatory requirements - governments across the globe are introducing new regulations that require companies to adhere to certain ESG standards, making it essential for organisations to stay up-to-date on these regulations.

1.3 Integrating ESG into SDGs

Organisations have been focusing on the sustainability component in applying the ESG principles in their operations including its impact on the ESG aspects. As such, businesses stress on the need to integrate ESG into SDGs to ensure their actions are purpose-driven to meet the needs of investors who prefer organisations that shifts from the conventional business to a more sustainable and responsible business. Figure 1.2 shows an example of how an apparel company defines the priority of SDG targets.

Figure 1.2: An apparel company defines the priority SDG targets



Source: Business Reporting on the SDG (GRI and UN).

1.4 Sustainability Reporting and Advancing SDGs

Sustainability reporting is the practice of measuring, disclosing and being accountable to internal and external stakeholders for organisational performance toward the goal of sustainable development. Stakeholders like customers, investors, employees and Non-Governmental Organisations (NGOs) value transparency from an organisation that they are doing business with.

Figure 1.3: Sustainability reporting helps advance the SDGs

Source: Business Reporting on the SDG (GRI and UN).

Figure 1.3 illustrates how sustainability reporting provides clarity in the disclosing process and ultimately contributes to SDGs. It starts with the business activities which has ESG practices in it, moving to sustainability reporting and disclosure, then assessed by investors, capital is channeled and sustainable development is achieved.

1.5 Push Factor

In today's dynamic landscape, enterprises are confronted with a heightened imperative to meet the evolving ESG expectations voiced by a diverse array of stakeholders, encompassing customers, consumers, business partners and shareholders alike. Consequently, businesses find themselves compelled to proactively engage with these multifaceted opportunities and challenges by adopting a variety of strategic approaches.

1.5.1 Investors

Approximately 89 percent of investors have expressed a strong preference for the mandatory implementation of globally consistent standards when it comes to reporting ESG performance.[8]

1.5.2 Consumers

About 91 percent of global consumers expect companies to operate responsibly to address social and environmental issues.[9]

About 84 percent seek out responsible products from companies that use socially responsible business practices.[10]

About 90 percent would boycott a company if they learnt of irresponsible or deceptive business practices.[11]

1.5.3 International Commitments and Requirements

1.5.3.1 Sustainable Development Goals

Malaysia together with other 192 countries have commited to achieve the 17 Global Goals towards a more sustainable, resilient and inclusive development by 2030. Countries have the primary responsibility to follow up and review the progress made in implementing the goals which requires quality, accesible and timely data collection.[12]

1.5.3.2 United Nations Framework Convention on Climate Change

The Paris Agreement stands as a legally binding international treaty addressing the critical issue of climate change. Its primary objective is to limit the rise in the global average temperature to a range of 1.5°C to 2°C above pre-industrial levels. All of Malaysia's top 11 trading partners, which notably include Singapore, China and the United States (US), have pledged to pursue net-zero targets. These commitments were reinforced during the

[8] How do you transform data into insight? Eighth Global Corporate Reporting Survey, EY, 2021.

[9] CONE (2015), Ubiquity Global CSR Study; Accessed through https://shorturl.at/luxN6.

[10] IPSOS (2020), What Sustainability Means to Pack & Product Testing.

[11] Ziynet Boz, Et Al (2020), Consumer Considerations for the Implementation of Sustainable Packaging: A Review; Accessed through https://www.mdpi.com/2071-1050/12/6/2192/pdf.

[12] United Nations Development Programme https://climatepromise.undp.org/what-we-do/where-we-work/malaysia.

UN Framework Convention on Climate Change (UNFCCC) held in Glasgow in 2021, highlighting the global consensus and collective effort to combat climate change.

1.5.3.3 European Corporate Sustainability Reporting Directive

As of January 5, 2023, the Corporate Sustainability Reporting Directive (CSRD) has officially taken effect. This directive represents a significant step forward in enhancing the regulations surrounding the disclosure of social and environmental information by companies. Under the CSRD, a more extensive group of large corporations, along with Listed Small and Medium Enterprises (SMEs), will now be mandated to report on their sustainability practices by the year 2025, for the financial year of 2024. This marks a substantial effort to modernise and strengthen corporate reporting requirements, promoting greater transparency and accountability in the realm of sustainability.[13]

1.5.3.4 European Sustainability Reporting Standards

Companies subject to the CSRD are now obligated to adhere to the European Sustainability Reporting Standards (ESRS). This represents a significant development introducing the concept of "double materiality." Under this framework, companies are not only required to report on how environmental factors impact their financial performance but also how their activities affect the environment and local communities. These new regulations are designed to ensure that investors and various stakeholders have access to comprehensive information essential for assessing investment risks arising from climate change and other sustainability issues.

For companies based outside of the European Union (EU), the requirement to furnish a sustainability report applies to all entities with a net turnover of at least EUR 150 million within the EU, provided they have at least one subsidiary or branch in the EU that surpasses specific thresholds. These non-EU companies will gradually need to comply with these reporting obligations, with the reporting for the financial year of 2024 expected to be incorporated starting in 2025. This extension of the CSRD requirements to non-EU companies underscores the global shift towards greater transparency and accountability in the realm of ESG impacts.[14]

[13] Corporate sustainability reporting, European Commission.

[14] https://ec.europa.eu/commission/presscorner/detail/en/qanda_23_4043.

1.5.3.5 Carbon Border Adjustment Mechanism

On 14 July 2021, the European Commission (EC) adopted a new proposal that requires importers to report the embedded emissions in certain carbon-intensive products (aluminium, cement, iron and steel, electricity and fertiliser) and buy certificates to account for these emissions. This initiative, known as the Carbon Border Adjustment Mechanism (CBAM), is designed to work in conjunction with the EU Emission Trading System (ETS). Its overarching objective is to create a level playing field for businesses, ensuring that the production of carbon-intensive goods does not migrate from the EU to third countries with less rigorous climate policies.

The CBAM is slated to be gradually implemented, commencing in a transitional phase on 1 October 2023 and becoming fully operational on 1 January 2026. According to Bank Negara Malaysia (BNM), the CBAM could affect up to 57 percent of Malaysia's exports to the EU by 2026 if domestic manufacturers fail to comply with equivalent emissions standards.[15] This underscores the urgency for Malaysia and other exporting nations to align their production processes with stringent environmental standards to maintain access to the European market and navigate the evolving landscape of global trade and climate policies.

1.5.3.6 European Union Deforestation Regulations

Companies dealing with certain commodities, including palm oil, cattle, soy, coffee, cocoa, timber and rubber as well as derived products like beef, furniture, or chocolate, are mandated to conduct rigorous due diligence procedures. These procedures are aimed at verifying that the products in question are not associated with deforestation, particularly on land that has undergone deforestation after 31 December 2020.

Once this Regulation is officially enforced, operators and traders will be granted an 18-month window to implement these new regulations, while MSMEs will enjoy a longer adaptation period of 24 months as well as other specific provisions. This comprehensive approach seeks to strike a balance between the environmental objectives of combating deforestation and the practicalities faced by businesses, particularly smaller enterprises.

1.5.3.7 The EU Mandatory Due Diligence on Human Rights

This due diligence framework mandates that companies assume responsibility for their supply chains. This new legislation

[15] Bank Negara's Economic and Monetary Review 2022.

applies universally, encompassing both EU and non-EU companies and places the onus on businesses to conduct a thorough due diligence process that encompasses their own operations as well as their direct and indirect business relationships.

1.5.4 Malaysia's ESG Commitments

Malaysia has commited to achieve the 17 SDGs by 2030. Furthermore, Malaysia in its Nationally Determined Contribution (NDC), pledged to reduce carbon intensity by 45 percent of Gross Domestic Product (GDP) by 2030, relative to the 2005 level. The commitment represents a 35 percent reduction on an unconditional basis and an additional 10 percent with the support of climate finance, technology transfer and capacity building from developed countries. Malaysia also aspires to be a net zero nation by 2050.

In 2018, the Malaysian Government has commited to draft a National Action Plan on Business and Human Rights to reduce risks on human rights in business operations in the country.[16] Meanwhile, the National Anti-Corruption Plan reflects the people's expectations for a greater corrupt-free nation that promotes transparency, accountability and integrity culture in every Malaysians.[17] In addition, there are various national policies and plans that have been formulated by the Government to achieve the SDG and to meet the ESG requirements, as shown in Table 1.2.

[16] Malaysia: The UNGP and ESG Investment Policies in Government-Linked Investment Companies, Business and Human Rights Asia, UNDP, 2021.
[17] National Anti-Corruption Plan 2019 – 2023.

Table 1.2:

Sustainability-and ESG-related national policies and plans

Sectors	Policies	Targets / Commitments
Nationwide	**MADANI Economy** Elevating the dignity and status of our nation with two main focuses: restructuring the economy to make Malaysia a leader in Asian economies to ensure that the enlarged wealth is benefitted equitably by the Rakyat.[18] The MADANI concept embraces six (6) core values to promote inclusive and sustainable economic growth, namely sustainability, compassion, respect, innovation, prosperity and trust. The MADANI Economy addresses the long-term issues related to competitiveness and the country's appeal as an investment destination; and the current issues that need to be immediately attended to such as the impact of rising cost of living on the people.	Targets to be achieved within the next 10 years: 1. Malaysia ranked among the top 30 largest economies in the world; 2. The Global Competitiveness Index ranks in the top 12 in the world; 3. The percentage of labour share of income reaches 45 percent of the total income; 4. Increase Female Labour Force Participation Rate to 60 percent; 5. The Human Development Index ranks within the top 25 in the world; 6. Improve Malaysia's position in the Corruption Perceptions Index to top 25; and 7. Towards fiscal sustainability, targeting a deficit of 3 percent, or lower.
Development Plan	**Mid-term Review of the 12th Malaysia Plan**	• Introduce guidelines for ESG reporting; • Ensure sustainable financing for ESG adoption; and

[18] Madani Economy: Empowering the People, July 2023.

Sectors	Policies	Targets / Commitments
	Manufacturing sector's transition towards smart manufacturing through adoption of advanced technology of 4IR, high skill workforce, high value-added activities and compliance with ESG principles to ensure industries are resilient and remain competitive in the global market.	• Establish centralised sustainability reporting platform.
Energy	**National Energy Policy, 2021-2040** The National Energy Policy (NEP) 2021-2040 aims to improve economic resilience and ensure energy recovery while achieving equality and universal access as well as ensuring environmental sustainability.	• Enhance macroeconomic resilience and energy security; • Achieve social equitability and affordability; and • Ensure environmental sustainability.
	National Energy Transition Roadmap, 2023 Phase 1: Unveiled 10 flagship initiatives to attract investments and generate job opportunities while reducing carbon emission by over 10 million tonnes annually. Phase 2: Focus on establishing the low-carbon pathway, national energy mix and emissions reduction targets as well as the enablers needed for the energy transition.	• Optimise energy resources to stimulate sustainable economic growth; • Stimulate growth, market opportunities and cost advantage for the economy and people; • Enhance energy sector contribution towards environmental sustainability; and Ensure energy security towards fiscal sustainability.
	National Energy Efficiency Action Plan, 2016 The Plan is focused to tackle issues pertaining to energy supply by managing demand efficiently.	• Implement energy efficiency (EE) plan; • Strengthen institutional framework, capacity development and training for implementation of EE initiatives;

Sectors	Policies	Targets / Commitments
		• Establish sustainable funding mechanisms to implement EE initiatives; and • Promote private sector investment in EE initiatives.
	Malaysia Renewable Energy Roadmap Malaysia Renewable Energy Roadmap (MyRER) is commissioned to support further decarbonisation of the electricity sector in Malaysia through the 2035 milestone. The scope of MyRER includes three (3) workstreams: assessing the baseline installed capacity and RE resources potential; developing technology-specific RE targets and scenarios; and developing a strategic roadmap.	• Facilitate the growth of the RE industry; • Ensure reasonable RE generation costs; • Enhance awareness on the role and importance of RE; and • Increase RE installed capacity mix by 31 percent or 12.9 gigawatt (GW) in 2025 and 40 percent or 18 GW in 2035.
	Green Technology Master Plan Malaysia The Plan facilitates the mainstreaming of green technology into the nation's development plans, encompassing four (4) pillars, namely energy, environment, economy and social.	• Reduce electricity consumption by 15 percent in 2030; • Increase number of certified green buildings by 1,750 in 2030; • Increase number of green manufacturers to 17,000 in 2030; and • Increase recycling rate by 28 percent in 2030.
Circular economy & waste management	**National Solid Waste Management Policy, 2016** The policy emphasises the reduction of solid waste through the 3Rs (Reduce, Reuse and Recycle), the preparation of special laws and institutions for solid waste management and	• Create a solid waste management system that is comprehensive, integrated, cost-effective, sustainable and accepted by the community that preserves the environment; and

Sectors	Policies	Targets / Commitments
	public cleaning, privatisation of solid waste management and public cleaning as well as the use of technology and continuous awareness education.	• Implement solid waste management based on a waste management hierarchy that prioritises waste reduction through the 3Rs, intermediate treatment and final disposal.
	Malaysia's Roadmap Towards Zero Single-Use Plastics The vision of this Roadmap is to take a phased, evidence-based and holistic approach by involving all stakeholders in jointly addressing single-use plastics pollution in Malaysia. This Roadmap is envisaged to deploy actions that can deflect the current trajectory to a more sustainable pathway towards a cleaner and healthier environment by 2030.	• Zero single-use plastics for a cleaner and healthier environment by 2030.
Forestry	**Malaysian Forestry Policy, 2021** The policy provides direction for the implementation of sustainable forest management through good governance and practices to ensure the forestry sector continues to contribute towards the achievement of sustainable development of the nation.	• Ensure sufficient forest areas are managed through good governance and practices for the conservation of biodiversity and ecosystem in line with the national commitment to maintain at least 50 percent of the total country land as forest and tree cover for maintaining earth greenery and environmental stability. • Manage, conserve and rehabilitate the permanent reserve forest or forest reserves or permanent forests based on the principles of sustainable forest management;

Sectors	Policies	Targets / Commitments
		• Ensure continuous supply of raw materials from natural forests and forests plantations to sustain the development of wood-based and non-timber forests industries; • Encourage the participation of indigenous, native and local communities in the protection, conservation and rehabilitation of forests; and • Strengthen capacity building; R&D&C; and innovation including providing adequate human and financial resources to improve forest management and utilisation of forest resources.
Biodiversity	**National Policy on Biological Diversity, 2016 – 2025** This policy covers key areas which include sustainable forest management, protection and conservation of biodiversity, climate change mitigation and adaptation, application of latest forestry technology, strengthening R&D as well as enhancing sharing of knowledge.	• At least 20 percent of terrestrial areas and inland waters, and 10 percent of coastal and marine areas, are conserved through a representative system of protected areas and other effective area-based conservation measures by 2025; and • Important terrestrial and marine ecological corridors have been identified, restored and protected by 2025.
Water	**National Water Resources Policy, 2012** The National Water Resources Policy (NWRP) ensures that water resources are used and developed in a sustainable manner to benefit the nation, both people and environment as	• Set out the direction and strategies for collective action to ensure the security and sustainability of water

Sectors	Policies	Targets / Commitments
	a whole through water security and sustainability as well as collaborative governance.	resources through integrated and collaborative mechanisms involving all stakeholders at all levels; • Provide means and measures to complement existing policy directions related to water resources to ensure their sustainable and equitable use, as well as protect the integrity of the environment, ecosystems and natural heritage; • Set out the means and measures for the adoption of water resources conservation plans at multiple scales so as to complement and strengthen existing land, resources, physical and other related development plans; and • Build the capacity of all stakeholders for effective participation and collaboration in governance of water resources.
Community	**National Community Policy, 2018 - 2025** To cultivate strategic partnerships among community, public sector, private sector and non-governmental organisations (NGOs) in developing the community.	• Empower the community with a sense of belonging and responsibility towards shared properties, facilities and spaces; • Create a caring, cooperative and respectful community that is sensitive towards community issues;

Sectors	Policies	Targets / Commitments
		• Cultivate strategic partnerships among the community, public sector, private sector and NGOs in developing the community; and • Produce more leaders and volunteers among the social housing community.
Labour	**National Action Plan on Forced Labour, 2021-2025** Eliminate the use of forced labour in any and all forms in Malaysia. The Plan is supported by four (4) pillars namely prevention, protection, prosecution and partnership. These pillars will pave the way for a more holistic and comprehensive action-oriented approach to achieve SDG Target 8.7.	• Increase awareness and understanding of forced labour, both among individuals who are at increased risk, among duty bearers and in the general public; • Focus on building capacity for law enforcement among relevant government authorities; • Strengthen migration management; and • Improve access to support and protection services.
Anti-Trafficking in Persons	**National Action Plan on Anti-Trafficking in Persons, 2021-2025** National Action Plan on Anti-Trafficking in Persons (NAPTIP 3.0) is a collective national commitment to eliminate trafficking in persons in Malaysia where justice, dignity and rights for all will prevail and no one is subjected to this heinous crime.	• Improve the nation's response to trafficking in persons (TIP) by strengthening existing legal and regulatory frameworks; • Implement coordinated, strategic and integrated action among enforcement agencies which supports prosecution; • Raise public awareness and prevent TIP through educating and disseminating information to the public and other preventative measures;

Sectors	Policies	Targets / Commitments
		• Provide victim-centred protection, assistance and recovery services that conform to international standards in collaboration with NGOs and other organisations; • Combat labour trafficking and child trafficking including relevant provisions of forced labour and child labour; • Strengthen the technical and institutional capacity in implementing the ATIPSOM Act (Act 670); • Establish and maintain an effective information and knowledge management system for government agencies and other relevant end-users involved in combating TIP; • Enhance local, regional and international smart partnerships; and • Strengthen governance and sustainability.
Women	**National Women's Policy** The Policy intends to ensure the development and empowerment of women by mainstreaming women's interests in achieving their full potential in the planning and country development to achieve gender equality.	• Build the potential and empower women from different level of society; • Provide women-friendly environment; • Cultivate gender equality culture at all levels of society and in all sectors; and

Sectors	Policies	Targets / Commitments
		• Ensure opinions and women's voices are accepted in the process of decision-making at all levels.
Human Rights	**National Human Rights Action Plan** The Plan is in line with the country's acceptance of recommendations made to promote and protect human rights during the 2009 Universal Periodic Review session in Geneva.	• Uphold the political and civil rights; • Uphold the social, economic and cultural rights; • Uphold the rights of the vulnerable group (women, children, older persons, persons with disabilities (PwDs) and refugees; • Orang Asli, Anak Negeri Sabah and natives of Sarawak; and • International obligations.
Persons with Disabilities (PwD)	**Malaysia's Plan of Action for Persons with Disabilities, 2016 – 2022** Seeks to provide equal rights, opportunities and access under national laws, eliminate disability discrimination and increase societal awareness towards PwD rights.	• Achieve 1 percent employment opportunities in the civil service for PwD; • Rights and dignity of PwD, including their full and effective participation in society; • Access to quality education, training and lifelong learning opportunities; • Making the physical and digital environment more accessible for PwDs; and • Enhance employment opportunities and economic participation for PwDs.

Sectors	Policies	Targets / Commitments
Anti-corruption	**National Anti-Corruption Plan** The Plan includes a total of 115 initiatives and 6 priority areas and strategies covering political governance, public sector administration, public procurement, legal and judicial, law enforcement and corporate governance.	• Improve government efficiency, transparency and accountability based on good governance; • Create clean business environment; • Be efficient and responsive in public service delivery; and • Uphold integrity in business.
Transport	**Low Carbon Mobility Blueprint, 2021 – 2030** The Policy seeks to reduce emissions from the transportation sector by shifting towards electrification in the transportation industry.	• Achieve 10,000 public charging stations for EV by 2025; and • Achieve 700,000 electric vehicles on the road by 2030.
Automotive	**National Automotive Policy, 2020** The Plan encourages new growth areas through integration of technology such as Next Generation Vehicle (NxGV), Mobility as a Service (MaaS) and IR4.0.	• Make Malaysia a regional hub for the next generation vehicle; and • Reduce carbon emissions by 2025 in line with ASEAN Fuel Economy Roadmap of 5.3 Lge/100km.
	National Electric Mobility Blueprint, 2015-2030 The Blueprint aims to fast-track Malaysia's transformation into a global electric mobility marketplace and propel Malaysia forward in both sustainable practices as well as economic development.	• Achieve 100,000 electric cars; • Achieve 100,000 electric motorcycles; • Achieve 125,000 charging stations; and • Achieve 2000 electric buses by 2030.

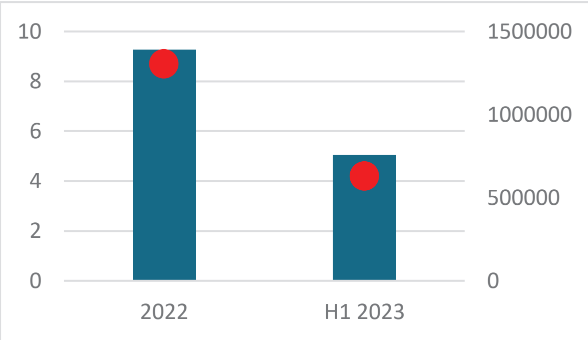
Source: Various masterplans, blueprints and action plans.

Chapter 2: Manufacturing Sector in Malaysia

2.0 Introduction

In 2022, the Malaysian economy experienced a remarkable surge, boasting a growth rate of 8.7 percent, a substantial leap from the 3.3 percent growth recorded in 2021, as shown in Figure 2.1.

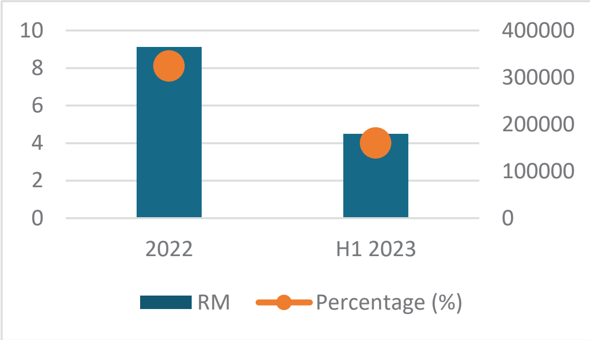
Figure 2.1: Real Gross Domestic Product (in percent growth and RM value)



Note: The real GDP value for 2023 is for first half of the year.
Source: Department of Statistics, Malaysia.

This noteworthy expansion was not without its contributing factors, one of which is the manufacturing sector, as shown in Figure 2.2. Specifically, the manufacturing sector achieved a robust growth rate of 8.1 percent in 2022, despite the high base effect in 2021, exemplifying its pivotal role in Malaysia's economic progress and development.

Figure 2.2: Manufacturing sector (in percent growth and RM value)



Note: The value for 2023 is forecast.
Source: Department of Statistics, Malaysia.

2.1 Manufacturing sector's contribution

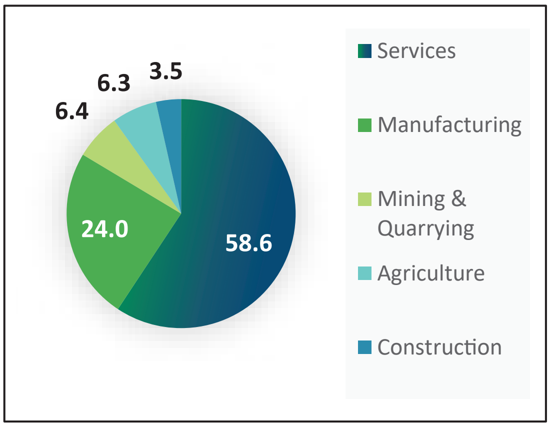
2.1.1 Contribution to GDP

As evident from the data presented in Figure 2.3, the manufacturing sector assumes a pivotal role as the second-largest contributor to the overall GDP, accounting for an impressive 24.2 percent share in the fourth quarter of 2022. The sector grew by 8.1% in 2022 as rising global demand and expansion in domestic industries further supported the production activities. The export-oriented industries were the main contributed mainly driven by strong demand for semiconductors and chemical products. Within domestic-oriented industries, the main driver are the transport, food and metal-related segments.[19]

The manufacturing sector attracted a total of RM44.9 billion (USD9.6 billion) in approved investments during the first half of 2023, accounting for 33.9% of the total approved investments across all sectors. This represents an increase of 2.5% from the RM43.7 billion recorded in the same period in 2022.

These investments are spread across 421 projects, set to generate an estimated 26,759 job opportunities. Of the total approved investments, RM33.9 billion (USD7.3 billion) came from FDI, with RM11 billion (USD2.3 billion) originating from domestic investments. The majority of the investments are in the E&E segments, followed by machinery and equipment, transport equipment, non-metallic mineral products and fabricated metal products. The approved investments in the manufacturing sector is expected to create a total of 26,759 potential job opportunities.[20]

Figure 2.3: Percentage contribution of the manufacturing sector to GDP, 2022



Source: National Accounts, Department of Statistics, Malaysia.

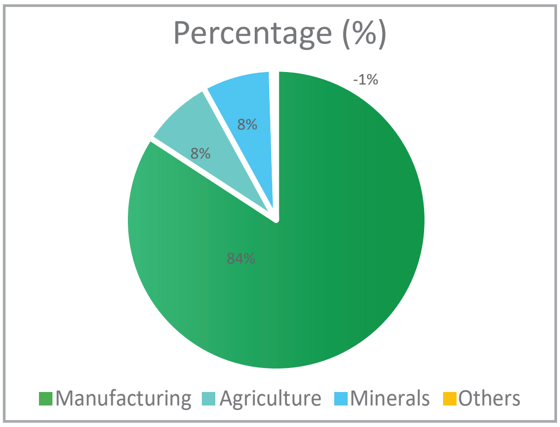
2.1.2 Contribution to Exports

In 2022, the manufacturing sector accounts for a lion's share of 84.2 percent to exports as illustrated in Figure 2.4. Some of the major exports include electrical and electronics (E&E) products, telecommunication equipment parts and automatic data processing and chemical products. Meanwhile, Singapore, China, the US, Japan and the EU are among the major trading partners for Malaysia.[21]

[19] Updates on Economic & Fiscal Outlook and Revenue Estimates 2023.
[20] https://www.mida.gov.my/media-release/first-half-2023-investments-inflow-into-malaysia.

[21] Updates on Economic & Fiscal Outlook and Revenue Estimates 2023.

Figure 2.4: Manufacturing sector, percentage contribution to exports, 2022

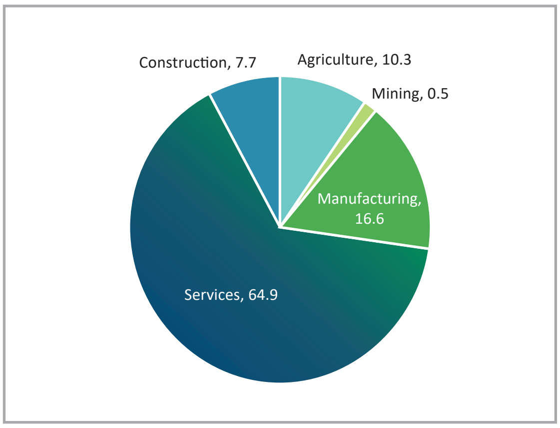


Source: Department of Statistics, Malaysia.

2.1.3 Contribution to Employment and Skills

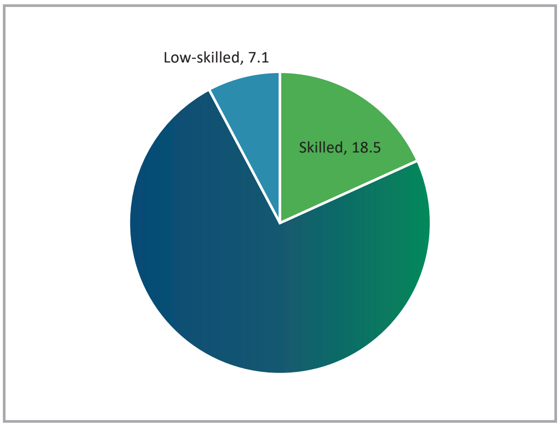
The manufacturing sector contributed up to 17 percent of employment across industries (as shown in Figure 2.5) with over 74 percent of them fall into the category of semi-skilled (Figure 2.6).

Figure 2.5: Contribution to employment, 2021



Source: Labour Force Survey, Department of Statistics, Malaysia, 20

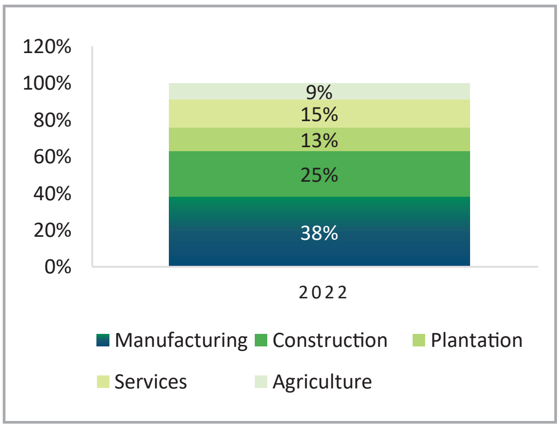
Figure 2.6: Skills category of the manufacturing sector in 2021



Source: Labour Force Survey, Department of Statistics, Malaysia, 2021.

Figure 2.7 depicts the distribution of registered foreign workers across various sectors in Malaysia. Notably, the manufacturing sector stands out as having the highest percentage of migrant workers in the country, constituting approximately 38 percent of the total in the year 2022.

Figure 2.7: Sectoral registered foreign workers



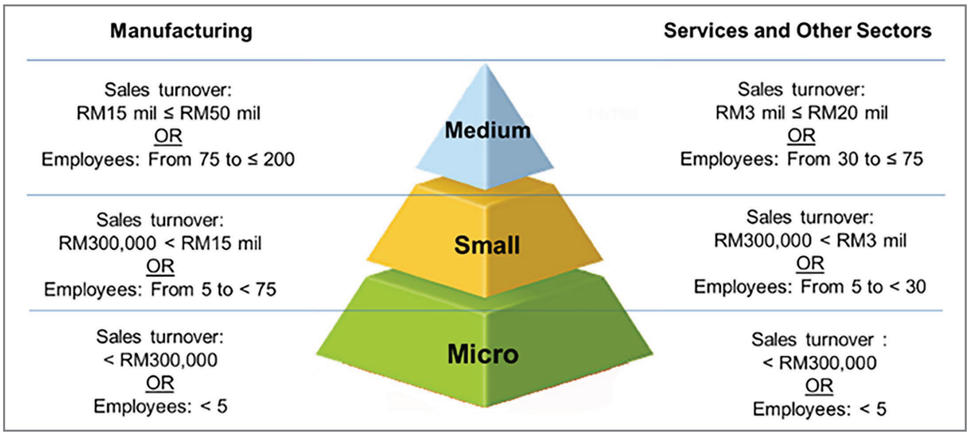
Source: Ministry of Human Resource, 2022.

2.2 MSMEs in the manufacturing sector

2.2.1 Establishment by size and Sector

Figure 2.9 provides a comprehensive overview of the classification criteria MSMEs in Malaysia, specifically within the manufacturing sector. These classifications are crucial for facilitating targeted support and policy measures. The criteria for categorising organisations into MSMEs are primarily based on two key factors: sales turnover and the number of employees.

Figure 2.9: SME definitions



Source: SMECorp, Malaysia.

As illustrated in Table 2.1, the manufacturing sector has an overall of 74,390 establishments with a total of 71,612 Micro, Small and Medium Enterprises (MSMEs). Apart from the MSMEs, the sector also has 2,778 large firms. This blend of small and large enterprises underscores the sector's capacity for accommodating a wide spectrum of businesses, contributing significantly to Malaysia's economic dynamism and growth.

Table 2.1: Number of establishments in 2021 by sector and size

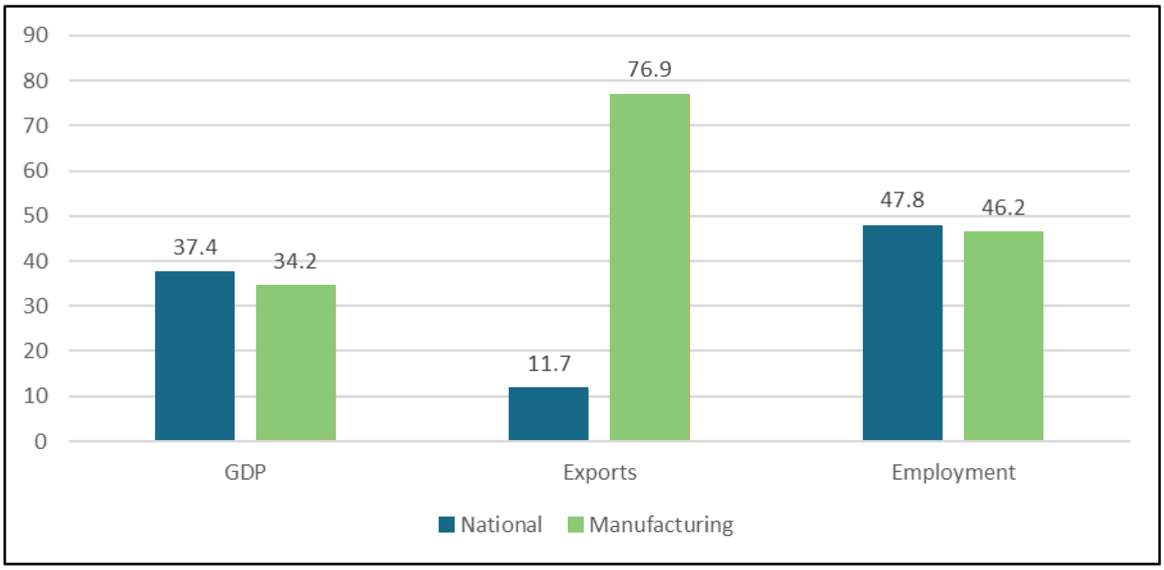
Sector	Micro	Small	Medium	Total MSMEs	Share of MSMEs (%)	Large Firms	Overall Establishments
Services	830,728	187,274	10,401	1,028,403	89.2	26,153	1,054,556
Construction	68,732	24,713	4,829	98,274	4.3	1,637	99,911
Manufacturing	**44,215**	**24,473**	**2,924**	**71,612**	**5.3**	**2,778**	**74,390**
Agriculture	17,223	5,337	1,073	23,633	1.1	1,501	25,134
Mining	3,597	743	232	4,572	0.1	200	4,772
Total	**964,495**	**242,540**	**19,459**	**1,226,494**	**100**	**32,269**	**1,258,763**

Source: SMECorp, Malaysia.

2.2.2 Contribution of MSMEs in the manufacturing sector

In 2021, Malaysia's MSMEs made a substantial impact on the country's economic landscape, with their exports totalling RM124.3 billion, equivalent to 11.7 percent of the nation's total exports. Notably, the manufacturing sector played a significant role in this, accounting for a staggering 76.6 percent of MSMEs' export contributions. Moreover, MSMEs within the manufacturing sector played a crucial role in providing employment opportunities, constituting 46.2 percent of the total workforce. This dual contribution of MSMEs to both exports and employment is illustrated in Figure 2.10, depicting their pivotal role in Malaysia's economic fabric in 2021.

Figure 2.10: Contribution of MSMEs to the economy, 2021

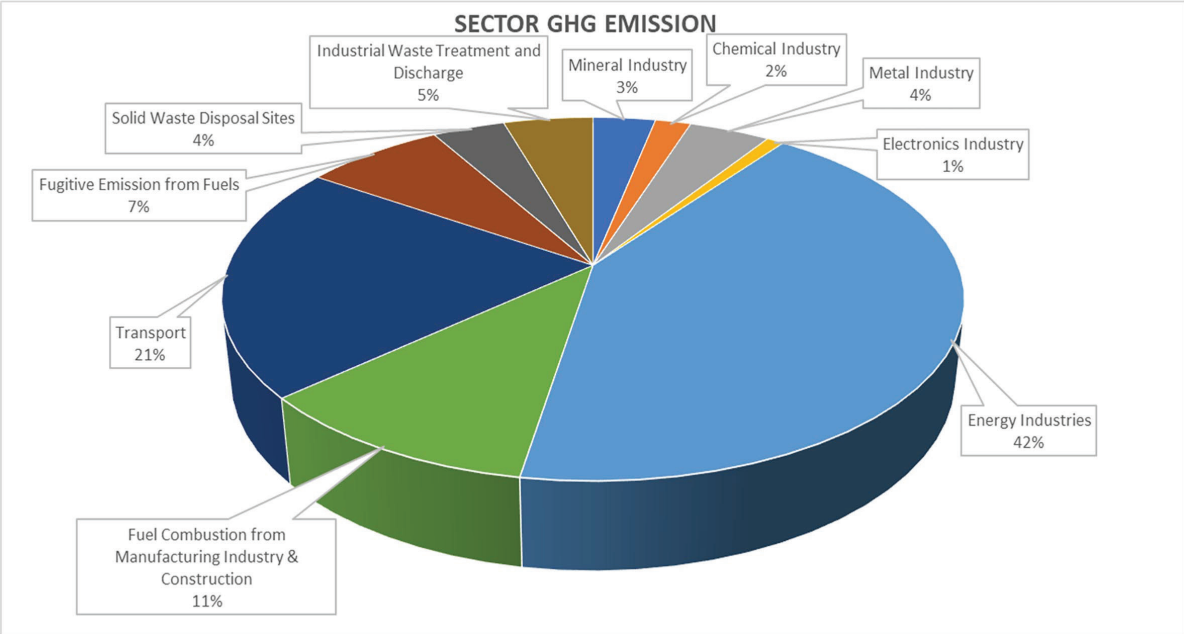


Source: Department of Statistics, Malaysia, 2021.

2.3 GHG emissions by sector

In 2019, the energy sector emerged as the leading contributor to GHG emissions, responsible for a substantial 42 percent of total emissions, followed by the transport sector accounting for 21 percent of GHG emissions. Meanwhile, the manufacturing and construction sectors contributed a noteworthy of 11 percent to the overall GHG emissions in the same year. Figure 2.11 serves as an illustrative representation of the GHG emissions breakdown by sector in 2019 shedding light on the sources of emissions and emphasising the importance of addressing these sectors to mitigate the environmental impact.

Figure 2.11: GHG emission by sectors, 2019



Source: Biennial update report (BUR) 4, 2019.

Chapter 3: Introduction to the i-ESG Framework

3.1 The i-ESG Framework

Fostering a sustainable manufacturing sector …

Recognising the importance to navigate an ever-evolving world, embracing sustainability and ESG practices has shifted from being a discretionary choice to becoming an essential mandate for businesses to retain their relevance. Consequently, MITI has underscored the significance of ESG as a fundamental element within the framework of the New Investment Policy (NIP) and the New Industrial Master Plan (NIMP) for 2030. A key priority for the NIP involves introducing initiatives targeted at strengthening Malaysia's foundations in adopting enhanced ESG standards, in-line with global transformations. The NIP strives to minimise downside risk from non-compliance with ESG practices while maximising the capture of ESG-related opportunities. Meanwhile, the recently launched New Industrial Master Plan (NIMP) has set goals to enhance ESG practices to safeguard the economy against ESG-related risks while actively working towards achieving a net-zero emissions. This Plan identifies i-ESG Framework as one of the strategies to transition towards sustainable practices and promote the adoption of renewable and clean energy sources.

The i-ESG Framework has adopted a comprehensive approach by taking into consideration the prevailing business environment. To achieve this, a series of engagements were conducted with diverse stakeholders (various ministries and agencies; business associations, chambers and embassies; academicians, think tanks and research institutions; and social enterprises) to identify key issues and challenges, ensuring a holistic perspective that validates the strategies and deliverables involved. Moreover, existing sustainability- and ESG-related policies and guidelines were reviewed and mapped to prevent duplication, maximise resource utilisation and enhance the overall effectiveness of the measures.

By adhering to the following six (6) **guiding principles**, the i-ESG Framework seeks to facilitate a balanced and effective transition toward sustainable practices while considering the needs and capabilities of all stakeholders.

1. **Phased approach**
   The framework adopts a two-phased approach, consisting of the initial phase known as "**Just Transition**" spanning from 2024 to 2026, followed by the second phase, "**Accelerating ESG**

Practices," spanning from 2027 to 2030.

2. **Incremental progress**
   Starting with modest steps and progressively enhancing initiatives over time.
3. **Business sustainability**
   Not overburdening businesses, recognising the importance of maintaining economic viability
4. **Collaborative partnerships**
   Promoting collaboration between governments and businesses to achieve common ESG goals.
5. **Experimental freedom**
   Encouraging bottom-up experiments and validations, allowing flexibility for innovative solutions.
6. **Outcome-focused assessment**
   Prioritising tangible results as a measure of success.

The i-ESG Framework has the **vision** for the manufacturing sector to be economically beneficial, environmentally sustainable and socially equitable, with three (3) **missions**, namely:

1. **Support manufacturing firms to learn, be agile and adopt ESG practices.**
   This mission focuses on providing the necessary resources and training to help manufacturing companies incorporate ESG principles into their operations.
2. **Transform challenges into opportunities; and**
   The aim is to identify the challenges that the sector faces, particularly related to ESG, and find innovative ways to turn these challenges into business opportunities.

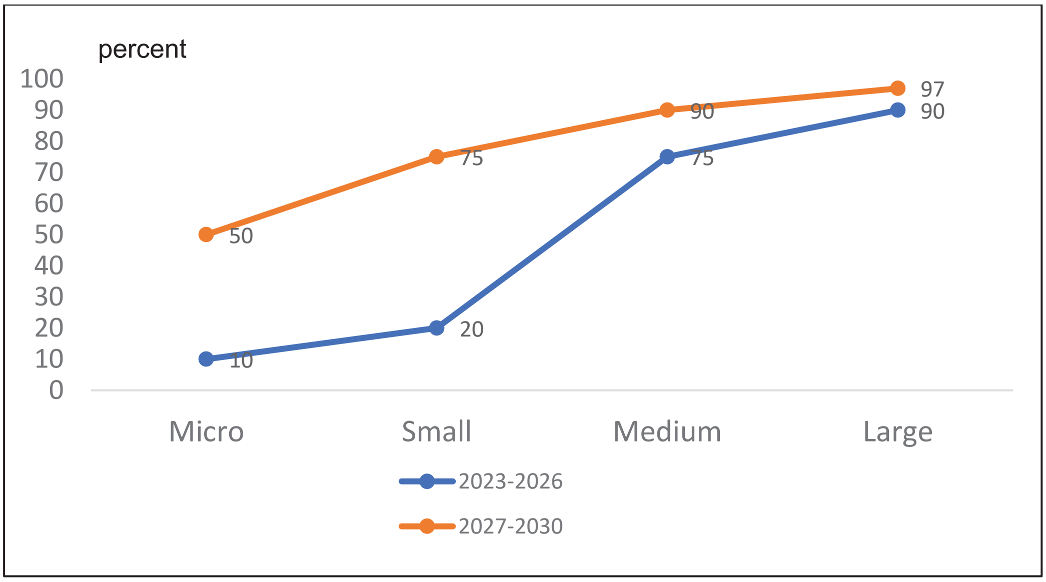
3. **Foster symbiotic public-private partnership for value creation.**
   This mission emphasises the importance of working together to create value for both sectors and society as a whole.

Following the phased adoption strategy, manufacturing companies are strongly encouraged to make a shift from the "**Just Transition**" model to embracing "**Accelerate ESG Practices**." This document primarily centres on the initial phase, referred to as the "Just Transition" Phase, which serves as a foundational step to support manufacturing companies in initiating their sustainability journey. With the anticipated progression, majority of medium-and large-companies will integrate sustainability reporting as a standard practice by end of 2026. Concurrently, it is anticipated that approximately one-third of micro-and small-companies will embark on a similar transition within the same timeframe, as depicted by Figure 3.1.

During this **"Just Transition"** period, businesses will receive valuable support to meet various ESG requirements through the 17 identified strategies. This support includes various capacity-building initiatives, mentoring programmes, self-assessment tool and starter kit. Additionally, companies will have access to financing facilities, subsidised digital tools and reporting platforms to facilitate their sustainability disclosure efforts. With the array of support provided, it is anticipated that companies initiating the use of the i-ESGStart in their first year of reporting will be capable of producing reports that adhere to internationally recognised standards by the fourth year, as shown in Table 3.1.

This strategic shift aligns with the growing global demand for sustainable products and the increasing importance of ESG reporting, particularly in export markets such as the EU. As the international marketplace increasingly prioritises sustainability and transparency, the phased approach of the i-ESG Framework positions organisations to not only meet evolving expectations but also gain easier access to international markets.

Figure 3.1: Estimated sustainability reporting by companies



Source: Internal estimates.

Table 3.1: Sustainability reporting pathway for manufacturing companies

Progression	Basic	Limited	Evolving	Advanced
1st year	i-ESGStart	i-ESGStart	Bursa & BRR	International Standards
2nd year	i-ESGStart	i-ESGStart	Bursa & BRR	International Standards
3rd year	Bursa & BRR	Bursa & BRR	International Standards	International Standards
4th year	International Standards	International Standards	International Standards	International Standards

Source: Internal estimates.

3.1.1 Objective

The primary objective of this Framework is to facilitate the adoption and enhancement of ESG practices within the manufacturing sector. This initiative is intended to accelerate progress towards achieving the ESG goals outlined in the NIP and the NIMP, with a particular focus on aiding the manufacturing sector in its transition towards achieving net-zero GHG emissions by 2050. The framework seeks to accomplish the following key goals:

a. **Provide clear and consistent guidance**
In a landscape with numerous standards and frameworks related to sustainability reporting, this Framework offers comprehensive guidelines for manufacturing companies to integrate ESG practices into their operations and subsequently produce sustainability reporting. The primary aim is to cut through the complexity of sustainability reporting by offering clear, coherent and readily understandable guidance, ensuring that companies can effectively implement ESG practices and disclose them in a straightforward manner.

b. **Assess company readiness**
Evaluate the readiness of manufacturing companies, with a specific emphasis on MSMEs, in their journey towards adopting ESG practices. This assessment will help identify areas of improvement and tailor support accordingly.

c. **Support adoption of ESG practices**
Assist manufacturing companies in the adoption of ESG practices by providing appropriate enablers. These enablers could include financial incentives, capacity-building programs, access to resources and knowledge-sharing platforms to facilitate their ESG transition.

d. **Estimate GHG reduction targets**
Calculate and regularly assess the annual GHG reduction targets for industries within the manufacturing sector. These targets should align with the overarching goal of achieving net-zero GHG emissions by the year 2050. This tracking and reporting mechanism will help monitor progress and ensure accountability in reaching this critical environmental objective.

By adhering to these objectives, the Framework aims to create a supportive and structured environment that encourages manufacturing companies to embrace ESG practices, ultimately contributing to the broader sustainability and environmental goals of reducing GHG emissions and fostering responsible business practices within the sector.

3.1.2 Outcomes

The i-ESG framework is designed to deliver the following key outcomes:

a. **Seamless shift towards sustainable production and consumption**
Promote the widespread adoption of ESG practices within the manufacturing sector by implementing a phased approach that allows companies to gradually integrate these practices into their operations.

b. **Empower sustainability reporting**
Empower industries to embrace sustainable business operations and initiate sustainability reporting, fostering a culture of self-sufficiency in sustainability practices.

c. **Attract ESG-compliant investments**
Attract a greater influx of investments that are aligned with ESG principles into the manufacturing sector. This influx of ESG-compliant investments will contribute to the growth and sustainability of the sector.

d. **Enhance export competitiveness and market expansion**
Strengthen the competitive advantage of manufacturing industries in the global market by enhancing their sustainability credentials. This, in turn, will facilitate market expansion and growth in international trade.

e. **Achieve net-zero GHG emissions by 2050**
Enable industries to set and work toward annual GHG emission reduction targets, aligning with the overarching goal of achieving net-zero GHG emissions by 2050. This forward-looking approach ensures that industries contribute significantly to environmental sustainability.

By achieving these outcomes, the i-ESG framework aims to create a thriving and responsible manufacturing sector that not only adopts ESG practices but also attracts investments, expands market presence and actively contributes to achieving the 17 Global Goals.

3.1.3 Components of ESG Framework

With the aim of realising goals and targets set under the NIP and NIMP, the i-ESG Framework has four (4) key components namely:

a. Standards;
b. Financing;
c. Capacity building; and
d. Market mechanism.

3.1.1 Standards

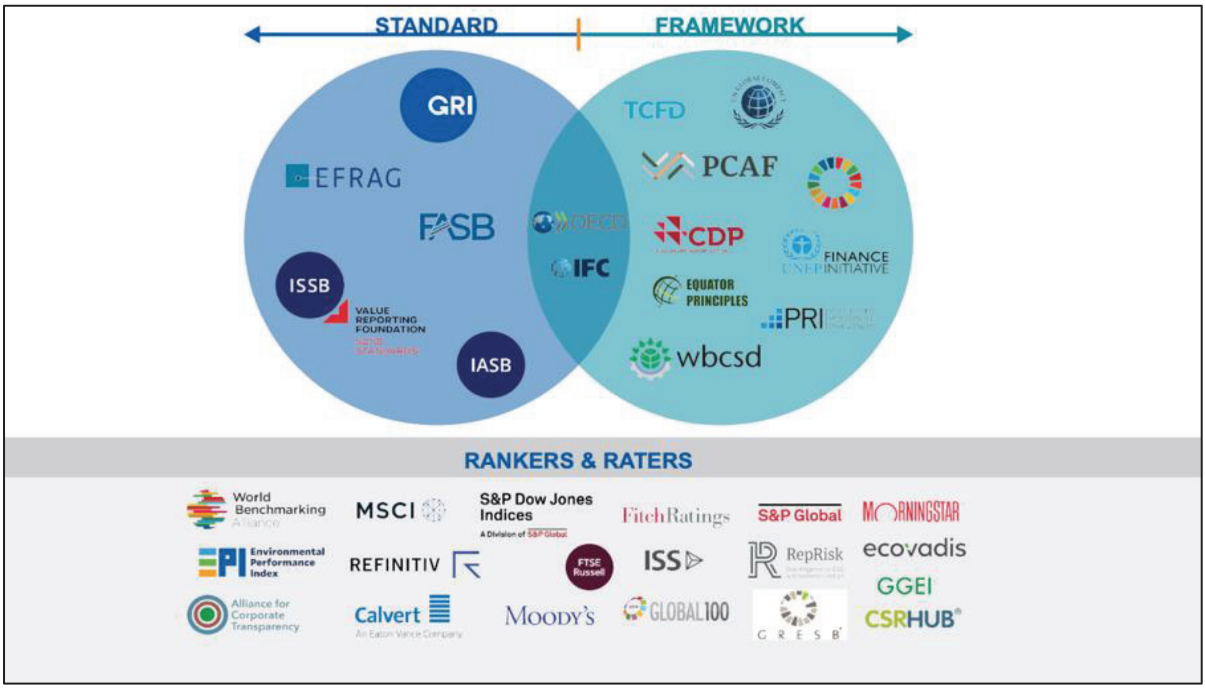
Standards and frameworks are two distinct but complementary elements within the realm of ESG reporting and sustainability practices:

a. **Standards** refer to specific, well-defined quality requirements for reporting ESG information in businesses. These standards contain detailed criteria and ESG metrics, outlining precisely "what" should be reported on a specific aspect of a company's sustainability performance. Prominent ESG reporting standards include the Global Reporting Initiative (GRI), the International Sustainability Standards Board (ISSB), the Sustainability Accounting Standards Board (SASB), and the European Sustainability Reporting Standard (ESRS). These standards serve as structured guidelines for companies to follow when disclosing their ESG-related data and performance metrics.

b. **Frameworks**, on the other hand, provide a broader, conceptual "frame" for understanding and organising information related to ESG topics. While they guide the direction of reporting and provide a high-level structure, they do not prescribe the specific methodologies for data collection or reporting. **ESG frameworks are based on principles and offer guidance for how companies should approach ESG issues within their overall strategy**. Key ESG frameworks include the Sustainable Development Goals (SDGs), the Task Force on Climate-Related Financial Disclosures (TCFD), the International Integrated Reporting Council (IIRC), and the Climate Disclosure Standards Board (CDSB). These frameworks help companies align their ESG efforts with broader global sustainability objectives and encourage a strategic, integrated approach to ESG reporting.

In summary, while ESG standards provide specific, detailed criteria for reporting, ESG frameworks offer a broader context and principles for understanding and approaching sustainability topics. Together, they help companies comprehensively address ESG issues and report their performance transparently and effectively.

Figure 3.2: Various standards, frameworks, rankers and raters



At the national level, regulatory bodies in Malaysia, including BNM, Bursa Malaysia and the Securities Commission (SC) have instituted various requirement and guidelines for companies operating within their jurisdiction. Specifically, for companies listed on Bursa Malaysia, there is a mandatory obligation to disclose information related to ESG risks and opportunities in their annual reports. As of the year 2020, Bursa Malaysia reported that 73 companies listed on its exchange had successfully met the globally benchmarked ESG criteria.[22] This achievement signifies that these companies have effectively aligned their business operations with recognised ESG standards and are committed to disclosing their ESG-related performance in a transparent manner.

In April 2021, BNM took a pioneering step by issuing the Climate Change and Principle-based Taxonomy (CCPT).[23] This initiative solidified BNM's position as an early regulatory leader in Southeast Asia, establishing a standardised classification system for climate-related exposures. The CCPT document serves several key purposes:

e. **Climate change awareness**
Raise awareness and understanding of climate change and its profound impacts on businesses, households and the broader economy. This

[22] ESG Matters - Driving Change through Financial Reporting, PWC, 2020.

[23] BNM Climate Change and Principle-based Taxonomy.

includes acknowledging the risks and opportunities associated with climate change.

b. **Principle-based taxonomy**
The CCPT introduces a principle-based taxonomy specifically designed for Financial Institutions (FIs) to assess and categorise economic activities based on the extent to which these activities align with climate objectives and support the transition to a low-carbon economy.

c. **Supporting sustainable practices**
Recognising the pivotal role that FIs play in influencing their customers' transition toward more sustainable business practices, the CCPT empowers these institutions to actively engage in promoting sustainability within their clients' operations.

d. **Economic impact assessment**
CCPT enables FIs to evaluate the climate impact of various businesses and investments which, in turn, helps inform decision-making processes and risk assessment

The SC's Sustainable and Responsible Investment (SRI) Taxonomy represents a crucial initiative aimed at enhancing transparency and offering voluntary guidance within the capital market ecosystem. Its objectives are multifaceted, targeting various stakeholders, including capital market intermediaries, issuers, corporations, asset owners, investors, analysts, rating agencies and the public sector. The primary focus of the SRI Taxonomy is to establish clarity in identifying and categorising economic activities based on their alignment with environmental, social and sustainability considerations.[24]

ESG reporting presents a multifaceted challenge due to its diverse set of stakeholders, each with distinct expectations. Companies must be equipped to provide detailed information and data covering a wide range of ESG areas to meet these various demands. In this context, the i-ESG Framework plays a vital role by serving as a practical tool to help organisations commence their sustainability reporting or ESG disclosure journey. Importantly, it recognises that there is **no one-size-fits-all** approach in this field. Instead, it allows companies to tailor their reporting based on their chosen standards or frameworks all while accommodating their specific priorities and

[24] Principles-based Sustainable and Responsible Investment Taxonomy for the Malaysian Capital Market.

focus areas. This flexibility acknowledges that ESG practices and goals can vary significantly from one company to another, ensuring that the framework adapts to individual organisational needs.

3.1.2 Financing

Sustainable finance encompasses a holistic approach to investment decision-making within the financial sector, with a primary focus on integrating ESG considerations.[25] The overarching goal is to channel capital towards sustainable economic activities and projects, fostering long-term sustainability and responsible growth. Key components of sustainable finance include the expansion of green financing alternatives for businesses and the advancement of low-carbon and green technologies. This approach not only encourages FIs and investors to consider ESG factors when evaluating investment opportunities but also promotes the allocation of resources towards projects and initiatives that align with broader sustainability objectives. By doing so, sustainable finance seeks to drive positive environmental and societal outcomes while maintaining financial viability. Furthermore, crowdfunding campaigns can be initiated to secure funding for various ESG-related purposes, allowing companies to engage a broader community of investors and supporters. Companies seeking ESG-focused financing can explore opportunities with venture capitalists who specialise in supporting ESG-related projects. There is a growing consensus within the investment industry that companies meeting ESG criteria are not only more likely to manage risk effectively but are also well-positioned to operate sustainably in the long term. As a result, they are increasingly viewed as attractive investment prospects in their own right.

In addition to the conventional financing mechanisms, incentives and grants play a pivotal role in facilitating the adoption of sustainable practices by MSMEs. The rationale behind this approach is substantiated by comprehensive research and stakeholder engagement. It underscores the fact that MSMEs often lack the financial means and capabilities to kickstart their ESG initiatives, despite recognising their importance in a sustainable and responsible business landscape.[26] The incentives and grants need to be designed to bridge the financial gap that MSMEs encounter when embarking on their ESG transformation.

[25] Nicholls. A. Sustainable Finance: A Primer and recent developments, ADB, 2021.
[26] https://www.rl360.com/row/funds/investment-definitions/environmental-social-governance-esg.htm?gclid=EAIaIQobChMI7vGh0cyngAMVrx2DAx3P3g8YEAAYBCAAEgILQ_D_BwE

3.1.3 Capacity building

Capacity building is paramount in providing understanding and awareness while ensuring the underlying principles of ESG is put into practice by companies. This includes the ability to understand how ESG impacts the performance of the company for long-term value at all levels. The five elements of capacity building that are needed in the manufacturing industry are as follows:

a. **Awareness**
   The organisation needs to first ensure there is adequate awareness on ESG within the organisation itself, not only among the employees but the board members as well. Awareness on ESG and its impacts at the various levels in a company will direct both top down and bottom up policy interventions as well as promote inclusivity in policy making;[27]

b. **Attitudes, values and belief**
   The organisations and individuals in the organisation understand and recognise the importance of ESG issues to companies and accept that they have a responsibility to address those issues. They must take it upon themselves to practice ESG at work and when doing business. This indeed is known as superior leadership by example;[28]

c. **Skills, knowledge and expertise**
   The organisations and individuals in the organisations have knowledge and expertise to study and analyse ESG information. They must also be able to digest, understand and apply this information in the context of their roles and their organisation's goals. They must be able to identify issues and mal-practices when it happens and mitigate accordingly as well as take pro-active steps for the future. A range of skills are also essential to transform strategies into measurable key performance indicators (KPIs) and then to collect the necessary data;[29]

[27] Jegatheswaran Ratnasingam, Environmental, social, and governance adoption in the Malaysian wood products and furniture industries: Awareness, adoption, and challenges.
[28] Muyang Liu, Xiaowei Luo, Wei-Zhen Lu, Public perceptions of environmental, social, and governance (ESG) based on social media data: Evidence from China, Journal of Cleaner Production, Volume 387, (2023).
[29] Sultana, S.; Zulkifli, N.; Zainal, D. Environmental, Social and Governance (ESG) and Investment Decision in Bangladesh. *Sustainability* 2018, *10*, 1831.

d. **Resources**

The organisations and individuals in the organisations must have enough human and financial resources as well as organisational or institutional support to take appropriate action on the ESG issues that are relevant to them. This include individuals who are well trained in ESG so that ESG can be applied in the organisation and business practices; and

e. **Access to information**

The organisations and individuals in the organisations have access to tools, data and information that they need to deliver their ESG-related goals so that the overall objective of the organisation and shared vision is achieved. Ensuring robust information across the ecosystem via high levels of personal accountability is key. This involves having quality information, a well-built system of requirements, knowledge on application, processes, controls and reporting as well as a requirement that information is independently assured.[30]

3.1.4 Market mechanism

The market mechanism is a fundamental concept that describes how supply and demand dynamics, along with pricing mechanisms, operate within an economic system. It plays a pivotal role in shaping various aspects of economic and environmental policies, particularly in the context of addressing climate change and advancing SDGs. One of the critical components of the market mechanism is the role of carbon pricing. Carbon pricing mechanisms, such as carbon taxes, emission trading systems (ETS) and carbon offsets, are instrumental in addressing GHG emissions. These mechanisms assign a financial cost to carbon emissions, which encourages businesses and individuals to reduce their carbon footprint. Carbon pricing not only provides a financial incentive to lower emissions but also creates a level playing field for businesses by internalising the external costs associated with climate change.

Additionally, the Voluntary Carbon Market (VCM) plays a significant role in complementing efforts to reduce carbon emissions. The VCM allows organisations, especially those facing challenges in reducing emissions (often referred to as "hard-to-abate" sectors), to voluntarily invest in carbon offset projects. These

[30] Liao H-T, Pan C-L and Zhang Y (2023) Collaborating on ESG consulting, reporting, and communicating education: Using partner maps for capability building design. *Front. Environ. Sci.* 11:1119011.

projects can help offset emissions that are difficult or expensive to eliminate entirely. The VCM provides a means for organisations to take responsibility for their carbon footprint beyond regulatory requirements, contributing to broader climate mitigation efforts.

Moreover, market mechanisms are instrumental in determining investment areas aligned with SDGs. By assessing market demand, pricing signals and emerging trends, investors and businesses can identify opportunities that promote economic growth while addressing social and environmental challenges. Market forces can incentivise investments in areas such as RE, clean technologies, sustainable agriculture and affordable healthcare, aligning with SDGs aimed at eradicating poverty, promoting clean energy and fostering inclusive and sustainable development. In summary, the market mechanism is a dynamic and essential concept in modern economies. Its role in carbon pricing, the VCM and guiding investments toward SDG-aligned areas demonstrates how market forces can drive positive environmental and social outcomes while promoting economic efficiency and sustainability.

Enablers of the i-ESG Framework

The i-ESG Framework identifies six (6) key enablers that are instrumental in promoting ESG practices within an organisation. These enablers serve as essential components for advancing sustainability and responsible business operations:

a. **Stakeholder engagement**
   Engaging with a diverse range of stakeholders, including industry players, investors, financial institutions, academicians, social enterprises, international bodies is imperative for gaining insights into their expectations, concerns and feedback regarding ESG initiatives.

b. **Human capital and capabilities**
   Fostering the development of necessary human resources, skills and expertise within the organisation to effectively manage and implement ESG initiatives. This includes raising awareness and delivering comprehensive training, coaching, mentoring.

c. **Financing and incentives**
   Ensuring access to financing options, such as loans, grants and investments is essential for funding ESG-related projects and activities. Designing appropriate incentives can further encourage organisations to prioritise sustainability.

d. **Policy and regulation**
   Advocating favourable policies is crucial for ensuring that

organisations adhere to ethical and sustainable practices. It also helps create a level playing field for all companies.

e. **Digitalisation**
Leveraging digital technologies to collect, analyse and report ESG data as well as enhance transparency and communication. Digitalisation can streamline ESG reporting processes and improve data accuracy.

f. **Technology**
Incorporating innovative technologies, such as green and sustainable technologies, into operations to reduce environmental impact and enhance efficiency. Technology can play a pivotal role in achieving ESG goals, particularly in areas like energy efficiency, waste reduction and renewable energy adoption as well as carbon capture and storage (CCS).

Chapter 4: The i-ESG Framework

4.1 Standard

In the realm of sustainability reporting, there exists a wide array of standards and frameworks that organisations can adopt to guide their reporting practices. These standards and frameworks come from various sources, both at the national and international levels. However, the choice of which standard or framework to adopt is not arbitrary; rather, it depends on the specific requirements and expectations of an organisation's stakeholders. This could include investors, customers, regulators and other parties interested in the organisation's ESG performance. Due to the diversity of stakeholders and their unique expectations, there is no "*one size fits all*" approach when it comes to selecting these standards and frameworks. Different stakeholders may prioritise different aspects of ESG performance and organisations need to align their reporting with these priorities.

This complexity can pose challenges, particularly for MSMEs. These organisations might lack the expertise, resources and understanding of the intricacies of various ESG standards and frameworks. As a result, they might struggle to produce accurate and meaningful sustainability reports that satisfy the expectations of their stakeholders. Moreover, many of these organisations might not even be aware of their current position in their ESG journey. They might lack the necessary assessment tools and benchmarks to gauge their performance against established ESG criteria. This lack of awareness further complicates their efforts to produce meaningful sustainability reports.

Consequently, the development of **clear and user-friendly guidelines** will assist organisations, especially MSMEs, in navigating the complex landscape of ESG reporting. These guidelines should offer step-by-step instructions, practical examples and relevant templates to help organisations select the most suitable standards and frameworks based on their specific stakeholder needs. Furthermore, there should be an assessment tool to evaluate organisation's ESG performance, enabling them to understand their starting point and track their progress over time.

Strategy A1: Design and conduct ESG readiness assessment to evaluate the extent of companies' readiness in their ESG journey.

Rational: While a 2021 PwC report unveiled that 94 percent of the leading 50 Malaysian PLCs have established ESG plans,[31] numerous MSMEs are grappling to establish themselves. To facilitate effective preparation for ESG engagement and the adoption of suitable sustainability reporting, it is imperative for businesses to initially assess their state of readiness. This assessment serves as a foundational step, allowing for the identification and implementation of pertinent intervention programmes tailored to the specific needs of each business.

Strategic Outcome:

i. Understand the "*as-is*" status of organisations;
ii. Offer insights into company profiling for the purpose of designing effective intervention programmes; and
iii. Identify the gaps that need to be addressed.

Enablers:

i. Stakeholder engagements; and
ii. Digitalisation.

Item	Deliverables	Implementing Agency and Collaborative Partners
A1.1	i-ESGReady - design and publish ESG Readiness Assessment Programme on MITI and MITI agencies' websites	MITI and MITI Agencies
A1.2	Encourage firms to participate in the assessment programme through seminars, forums and conferences	MITI, MITI Agencies, chambers and associations
A1.3	Conduct thorough analyses and provide quarterly reports on the findings based on the readiness assessments.	MITI (BiESG)

[31] Positioning Corporate Malaysia for a Sustainable Future, PwC Malaysia and Capital Markets Malaysia (CMM), 2021.

Strategy A2: Formulate a clear, consistent and coherent sustainability reporting guideline for manufacturers initiating or at a foundation stage of their ESG endeavours.

Rational: The concept of a universal ESG or sustainability standard doesn't apply, considering the multitude of standards existing at both national and international levels. This array of options often leaves companies uncertain about choosing the right framework. However, with a well-structured guideline, enterprises can generate sustainability reports that align with diverse standards. This holds particular significance for ESG newcomers, especially manufacturing firms. Moreover, there is an imperative to facilitate comprehensive ESG disclosure throughout the supply chain of Public Limited Companies (PLCs) to fulfil the increasing expectations of both investors and buyers.

Strategic Outcome:

i. More companies to embark on sustainability reporting, especially MSMEs along the supply chain; and
ii. Expand both domestic and export markets.

Enablers:

i. Stakeholder engagements; and
ii. Policy and regulations.

Item	Deliverables	Implementing Agency and Collaborative Partners
A2.1	Engage relevant stakeholders to ensure alignment and synergy between the existing local and international standards and frameworks.	MITI, BNM, BURSA, SC, CMM and SIRIM
A2.2	i-ESGStart - Develop a comprehensive sustainability reporting guideline as a starter kit for MSMEs, encompassing essential formulas, templates and illustrative examples that are aligned with local and international standards and frameworks.	MITI
A2.3	Execute a structured phased approach to sustainability reporting, aligning it with local and international standards and frameworks, in particular, the Business Review Report (BRR), an essential component of a company's director's	MITI, SSM and Bursa

Item	Deliverables	Implementing Agency and Collaborative Partners
	report as well as the Bursa Malaysia's Enhanced Sustainability Guidelines	
A2.4	Integrate ESG disclosures among companies within the supply chain of PLCs with Bursa Malaysia's Centralised Sustainability Intelligence (CSI) Platform, serving as a centralised repository for ESG disclosures.	MITI and Bursa Malaysia

BOX 1

Article on Business Review Report

As part of their statutory obligations, directors are required to prepare a director's report pursuant to section 252 of the Companies Act 2016 (CA 2016) which forms part of the financial statements. The director's report contains:

a. disclosures relating to the financial position of the company as set out in the Fifth Schedule of the CA 2016; and
b. (may contain) non-financial disclosures as specified in section 253(3) of the CA 2016. Companies are encouraged to report on Environment, Social and Governance (ESG) matters that consist of environmental, employee, customers, social and community as part of the non-financial reporting.

Business Review Report (BRR) is a type of voluntary disclosure that is applicable to all types of companies. Companies are encouraged to prepare and lodge the BRR to Suruhanjaya Syarikat Malaysia (SSM) on non-financial matters to provide a broader perspective on the company's performance in addition to the usual mandatory disclosures relating to their financial performance. Over the years, SSM has undertaken many initiatives to promote good corporate governance practices and encouraged companies to embed sustainability principles into their business strategy and operations.

These initiatives are set out to provide companies the opportunity to realign their business strategies in compliance with ESG principles and embark on sustainability reporting which includes:

a. impact of the company's operations;
b. policies on its employees including matters relating to working conditions;
c. corporate practices in human rights; and
d. social and community issues such as the impact of the business on the local community including human rights, investment towards the local community, recruitment amongst the local community among others.

SSM has issued the Best Business Practice Circular 6/2017 on Business Review Report: Guidance to Disclosure and Reporting in 2017 which provides useful recommendations for companies to prepare the BRR. The BRR could be used by policymakers to determine appropriate policies or incentives that could be introduced on sustainability practices moving forward.

BOX 2

Centralised Sustainability Intelligence Platform

In today's business landscape, sustainability has become a top priority for companies worldwide. The demand for effective solutions to manage ESG data has never been more critical, driven by the expectations of investors and consumers. In response to this growing need, enhanced sustainability reporting requirements for Bursa Malaysia PLCs will be implemented, starting with the disclosure of common sustainability matters for Main Market listed issuers for financial year ending on or after 31 December 2023[32]. There is also a need to facilitate comprehensive ESG disclosures by companies including their supply chains, to boost their overall competitiveness and investability.

Bursa Malaysia, in collaboration with the London Stock Exchange Group, has developed the Centralised Sustainability Intelligence (CSI) Platform — to enable companies to consolidate and disclose ESG data in a standardised manner, streamlining reporting and enhancing data credibility. The CSI Platform is envisioned to serve as the implementation vehicle for MITI’s NIMP 2030 and i-ESG Framework. As a centralised repository for ESG disclosures, it aims to be the national infrastructure for companies' sustainability-related disclosures for both PLCs and MSMEs, as announced by the Honourable Prime Minister of Malaysia in March 2023.

The CSI Platform offers a range of features and benefits, including:

- As a **one-stop centralised solution** - It encompasses a suite of tools within a single, integrated platform. Data ownership resides with corporates and SMEs over the data they load onto the system.
- Designed to cater to **all companies** – PLCs or private, large cap, or SMEs. It offers tools for carbon profiling, allowing for the validation of carbon emissions and surpluses, and serves as an engagement tool for companies to manage their ESG performance effectively.
- CSI Platform’s **modular and functional design** allows for customisation to adapt to specific operational needs while maintaining data standardisation. This enables comparability across diverse datasets and facilitates compliance with global standards such as the TCFD and the ISSB.
- The Platform’s **plug-and-play** functionality enables companies to integrate pre-existing tools without the need for extensive development efforts. This streamlines the implementation process, enhances overall efficiency, and enables companies to address their specific needs and adapt to changing regulatory environments.
- The CSI Platform offers an **affordable entry point**, ensuring accessibility for companies of all sizes. Widespread adoption will unlock economies of scale.

The Platform aims to enable corporates and their suppliers to disclose pertinent climate disclosures, enabling effective supply chain management, while seeking to unlock sustainable project/ supply chain financing opportunities. An Early Adopter Programme (“EAP”) has been initiated with leading corporates in verticals with high decarbonisation potential. The participants to-date include UMW, PETRONAS and Mah Sing, along with financing providers such as Maybank, CIMB and Alliance Bank. The EAP aims to validate the Platform’s value propositions, including its features and tools on Climate Analytics and Reporting, Carbon Management and Sustainable Financing.

How does it work? PLCs will submit their spend data with suppliers into the Platform, which is then processed to produce PLCs’ Scope 3 emission estimates, to help PLCs identify the high carbon emitters within their supply chain. This allows the company to take further actions, such as engaging with their suppliers to decarbonise to reduce emissions, through incentives offered by the banking partners. Bursa Malaysia’s sustainability reporting guidelines for PLCs are supplemented by MITI’s i-ESGStart for SME suppliers, to help companies of all sizes effectively evaluate, report, and enhance their ESG management. The i-ESGStart document is a starter kit which has been developed by MITI

[32] https://www.bursamalaysia.com/sites/5bb54be15f36ca0af339077a/content_entry5c11a9db758f8d31544574c6/63312a2439fba20d86ba8e16/files/26Sept_2022_Bursa_Malaysia_Enhances_Sustainability_Reporting_Framework_With_New_Climate_Change_Reporting.pdf?1664169009.

to support Malaysian manufacturers align with international standards and frameworks, as part of the NIMP 2030.

Failure to address ESG data management comprehensively could jeopardise Malaysia's global competitiveness. Hence, Bursa Malaysia is actively collaborating with Malaysian policymakers, regulators, and peer exchanges in the region to develop interconnected ecosystems and infrastructure solutions for ESG management, promoting economies of scale and reducing market fragmentation. Furthermore, information submitted to the CSI Platform can be leveraged upon by various stakeholders to help achieve respective intended outcomes:

1. **SMEs**: Providing them with access to funding, enabling them to sustain and grow their operations. Furthermore, it grants access to standardised tools and capabilities through third-party advisors in a cost-efficient manner.

2. **PLCs**: Supplier engagements are transformed from traditional administrative, survey-based approaches to dynamic, outcome-based interactions. Funding received by SMEs helps maintain a more stable supply chain. PLCs can effectively manage their suppliers' carbon emissions while using the data for comprehensive sustainability reporting, including Scope 3 emissions.

3. **Financial Institutions**: Offering a pathway to connect with potential clients, reducing the cost associated with customer acquisition and streamlining the credit assessment process. Data provided allows for more comprehensive credit assessment, further optimising risk management. Moreover, it leverages digitalisation, reducing administrative efforts and enhancing operational efficiency.

4. **Policy makers, think tanks, regulators**: The platform serves as a tool for policy recommendations and informed decision-making. It can facilitate benchmarking and comparison of sustainability metrics with other countries, aligning the objectives of businesses with those of government ministries and agencies influencing sustainable trade and finance, such as BNM, MITI, MOE, MOF, SC, NRECC and SSM.

Strategy A3: Utilise digital tools for the collection and analysis of sustainability reporting data.

Rational: In today's digital world, the ability to make data-driven decisions and strategies for moving forward is central to the success of a company. Thus, digital tools facilitate the transformation of raw data into comprehensive reports that exhibit an ESG progress. The dynamic visualisation of data through graphs, charts and infographics adds clarity and accessibility to complex information, enhancing stakeholder comprehension and engagement.

Strategic Outcome:

i. Ease data compilation and reporting;
ii. Enable tracking and monitoring; and
iii. Centralised reporting.

Enablers:

i. Stakeholder Engagement;
ii. Digitalisation; and
iii. Policy and regulation.

Item	Deliverables	Implementing Agency and Collaborative Partners
A3.1	Harness digital tools to facilitate the process of collecting and managing sustainability data.	MGTC
A3.2	Prioritise affordability and user-friendliness when developing platforms, particularly for MSMEs.	MITI, Bursa and MGTC
A3.3	Include GHG emissions information in the Tenaga Nasional Berhad (TNB) bill to aid in calculating an organisation's Scope 2 emissions.	Suruhanjaya Tenaga and TNB
A3.4	Monitor the progress of MSMEs by leveraging the data collected through the digital platform.	MITI and MGTC
A3.5	Create a rating system to assess organisations based on their ESG practices.	MITI, SIRIM and MGTC

BOX 3

Low Carbon Operating System

Low Carbon Operating System (LCOS) is a cloud-based carbon management platform designed specifically to help corporates and SMEs to easily measure, manage and mitigate their greenhouse gas (GHG) emissions. The tool was developed by MGTC in collaboration with Envision Digital and was launched in October 2022 at IGEM. It also aligns with globally recognised standards such as the GHG Protocol and ISO14064 as well as meets data security and data privacy standards, including ISO27001, Personal Data Protection Act 2010 (PDPA) and General Data Protection Regulation (GDPR).

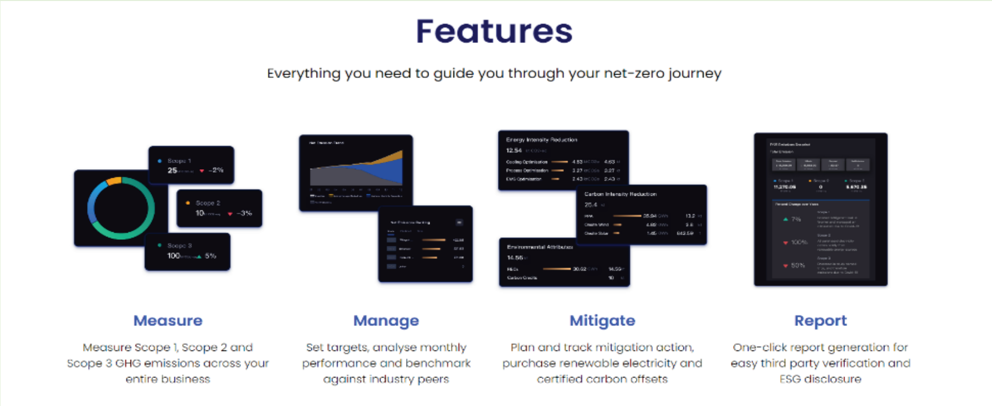
LCOS has three (3) main components, namely, (i) measure, (ii) manage, and (iii) mitigate in the context of carbon management coupled with a one-click report generation. LCOS is offered as an annual subscription package that comes with awareness training on GHG emissions, onboarding facilitation and guidance, and networking with mitigation solution providers for one (1) organisation account + one (1) site for measurement. All users are also offered a 14-day free trial period to experience the platform before committing to an annual subscription. There are two (2) modules under LCOS; One is for organisations to subscribe for their own carbon management, second is for organisations to host programme where companies may participate in the programme and report their data to the referral companies. For the latter, MGTC is in partnership with financial institutions, namely OCBC and CIMB (with a few more partnerships with financial institutions in the pipeline) to drive sustainability adoption among SMEs to remain competitive and resilient regionally and globally, and at the same time encourage their participation and contributions to the country’s green transition, aligned with the national agenda. More information on LCOS can be obtained from the website www.mgtc.gov.my/lcos or email to lcos@mgtc.gov.my.

Key Features of LCOS

Reliable GHG Emission Measurement
LCOS software utilises industry-standard calculation methodologies to ensure reliable measurement of GHG emissions for business;

Informative Dashboards and Analytics
With LCOS intuitive dashboards, businesses can track key performance indicators, visualise emission trends, and generate GHG reports prepared for their business needs; and

Compliance with Reporting Standards
The system aligns with international GHG reporting frameworks and standards, ensuring emissions data is in line with global best practices. This enables businesses to meet regulatory requirements and facilitates transparent communication with stakeholders.



LCOS for the National Industry ESG Framework

In the global landscape, the pursuit of ESG excellence is a necessity for industries to thrive sustainably. In Malaysia, the National Industry ESG Framework stands as a guide for industries on their journey towards responsible corporate citizenship. To amplify the framework's impact and empower industries in embracing ESG principles more effectively, it is value-adding to position LCOS as a critical and integral component, as a toolkit offering real-time data and insights to inform crucial decisions concerning carbon emissions.

Precise Carbon Footprint Measurement: LCOS empowers industries to measure their carbon emissions throughout the entire value chain. This data forms the bedrock upon which emission reduction targets are set.

Targeted Emission Reduction Strategies: LCOS boasts a repository brimming with SBTi target setting feature essential for carbon emission reduction.

Real-time Monitoring and Reporting: LCOS simplifies continuous emissions monitoring and real-time reporting, ensuring that industries can stay abreast of their performance and pivot their strategies, if necessary.

Collaboration Ecosystem: LCOS propels industries toward collaboration, encouraging the cross-pollination of successful emission reduction strategies and the inception of mutually beneficial initiatives.

Robust ESG Metrics: LCOS provides industries with precision-guided, data-driven metrics that lay bare the environmental performance of businesses.

Customized Emission Reduction Strategies: LCOS's repository of emission reduction strategies fit together into the framework.

LCOS is fitted into the framework to facilitate measuring and reporting organisation’s emissions as well as access to recommendations and best practices. grounded in an industry's specific emissions profile and sector, to enhance the effectiveness of ESG initiatives. By integrating LCOS data into the framework, Malaysia can establish a standardised, transparent and internationally recognised system for reporting carbon emissions. This not only aligns with global ESG reporting standards but also furnishes industries with a clear understanding of their environmental impact, setting the stage for the formulation of effective reduction strategies.

Strategy A4: Transition to net zero industrial parks

Rational: Malaysia has over 600 industrial estates[33] throughout the country with each adopting a unique approach to sustainable development. Noteworthy among these are specialised parks catering to halal production, high-tech industries and efficient logistics. However, with the awareness on ESG continues, there is a need for the development of proper master-planned industrial park that are complete with central management, green features and certifications, RE to counter the carbon footprint, as well as adequate governance on workers' welfare and business conduct. This will meet the requirement of leading companies and industrialists that have begun pledging and implementing initiatives towards carbon-neutral operations, on top of elevating social and governance standards.

Strategic Outcome:

i. Attract investment from environmentally conscious investors and businesses that are looking for sustainable locations to expand or set up operations;
ii. Promote efficient use of resources, such as energy and water, which can lead to cost savings for businesses; and
iii. Support the Government's aspiration to achieve net zero target by 2050.

Enablers:

i. Stakeholder engagement;
ii. Technology;
iii. Digitalisation; and
iv. Policy and regulation.

Item	Deliverables	Implementing Agency and Collaborative Partners
A4.1	Conduct a gap analysis to identify the requirements to transit to green industrial parks.	MITI, SIRIM and the World Bank

[33] https://www.mida.gov.my/setting-up-content/infrastructure-support/.

Strategy A5: Introduce a carbon price certificate as a proactive measure to ensure compliance with the Carbon Border Adjustment Mechanism (CBAM).

Rational: On 14 July 2021, the EC adopted a proposal for CBAM, which will require importers to report the embedded emissions in certain carbon-intensive products (cement, iron and steel, aluminium, fertilisers and electricity) and buy certificates to account for these emissions. If importers can prove, based on verified information from third country producers, that a carbon price has already been paid during the production of the imported goods, the corresponding amount can be deducted from their final bill.

Strategic Outcome:

i. Position businesses for long-term market access and adaptability to evolving regulatory landscapes;
ii. Allow businesses to continue accessing the Europe's market without facing trade barriers or tariffs related to carbon emissions;
iii. Explore opportunities in other regions that may adopt similar carbon-related trade measures in the future; and
iv. Contribute to the overall environmental responsibility and sustainability.

Enablers:

i. Stakeholder engagements;
ii. Digitalisation;
iii. Technology; and
iv. Policies and regulations.

Item	Deliverables	Implementing Agency and Collaborative Partners
A5.1	Conduct stakeholder engagements to gauge feedback on the CBAM requirements.	MITI, MATRADE, SIRIM and the EU
A5.2	Determine the appropriate agency and methodology for the production of carbon certificates.	MITI, SIRIM and MGTC

Strategy A6: Develop carbon footprint for products.

Rational: The carbon footprint of a product refers to the total amount of GHG emissions, primarily carbon dioxide (CO_2) and other gases like methane and nitrous oxide, that are emitted due to the production level which includes raw material extraction to production and transportation. Disclosing carbon footprint will become requirement under CBAM. Furthermore, providing consumers with information about the carbon footprint of products enables them to make more informed and sustainable choices.

Strategic Outcome:

i. Increase customer loyalty and trust with positive environmental practices;
ii. Attract green investments;
iii. Greater adoption of circular economy;
iv. Ensure compliance and access markets that have strict environmental requirements;
v. Provide scientific data that can support the establishment of standards, emissions limits and eco-labelling programmes; and
vi. Accelerate Government Green Procurement (GGP) programme.

Enablers:

i. Stakeholders engagement;
ii. Human capital and capabilities; and
iii. Policy and regulation.

Item	Deliverables	Implementing Agency and Collaborative Partners
A6.1	Conduct a product carbon footprint assessment (from raw material to production) for goods exported to the European markets in alignment with the requirements of CBAM.	MITI, Universities, SIRIM and MATRADE
A6.2	Enhance GGP Programme by gradually considering carbon footprint as a criterion.	MITI, MOF and MGTC

4.2 Capacity Building

The complexity of ESG, encompassing a wide spectrum of topics, demands specific skills and expertise to conduct comprehensive reporting. However, a notable challenge lies in the fact that numerous organisations, particularly MSMEs, lack the internal capabilities to initiate sustainability reporting efforts. Moreover, a considerable portion of MSMEs remains unaware of the ESG landscape, effectively limiting their potential for meaningful ESG engagement. As highlighted in the UNGC's Pulse Report, about 34 percent of companies indicate that SDG commitments are not relevant to their businesses.[34]

Strategy B1: Raise awareness among manufacturers, with a special emphasis on MSMEs, regarding the importance, benefits and potential opportunities associated with ESG principles.

Rational: Despite the growing trend and emphasis on sustainability among local stakeholders, an alarming 45 percent of Malaysian companies did not allocate a budget for their sustainability initiatives while 34 percent of them indicated that they are not relevant to them.[35] ESG awareness encourages companies to adopt sustainable practices that consider the long-term impacts of their operations on the environment, society and their own governance. This leads to more resilient business models that can thrive in a rapidly changing world.

Strategic Outcome:

i. Organisations (board of directors and employees) understand the risks and opportunities laid by ESG;
ii. Implement ESG practices in businesses to address the needs and interests of all stakeholders; and
iii. Identify potential risks and proactively implement preventive measures.

Enablers:

i. Stakeholder engagements; and
ii. Human capital and capabilities.

[34] Pulse Report, United Nation Global Compact, 2022.

[35] Pulse Report, United Nation Global Compact, 2022.

	Deliverables	Implementing Agency and Collaborative Partner
B1.1	*Kenal*ESG - Conduct awareness programme across regions, with a specific focus on reaching out to MSMEs.	MITI, MITI Agencies, chambers & associations
B1.2	Organise national ESG forum annually to provide clarity on the i-ESG Framework's goals, introducing potential solution providers and fostering the sharing of best practices.	MITI, MITI Agencies, chambers & associations and solution providers
B1.3	Disseminate comprehensive explanations of the i-ESG Framework through diverse channels, such as seminars, webinars, forums and various media platforms.	MITI, MITI Agencies, chambers & associations and media
B1.4	Create a dedicated microsite to disseminate comprehensive information about ESG, featuring a user-friendly interface with newsletters as well as an FAQ section for easy access to commonly asked questions.	MITI

Strategy B2: Raise awareness among ministries and government agencies including state and local councils.

Rational: Government procurement constitutes approximately 15 percent of the GDP, underscoring the significance of ESG awareness among government officials to expedite the adoption of GGP practices. Additionally, prominent credit rating and investment research agencies, including Moody's, S&P, Fitch and MCSI, have initiated the integration of ESG criteria into their risk evaluations of governmental entities spanning local, regional and national tiers. These ESG ratings exert a direct influence on government's credit ratings, its capacity to secure financing and the expenses associated with borrowing.

Strategic Outcome:

i. Enhance knowledge on ESG among government officers;
ii. Informed decision making with regards to policies on ESG and sustainability;
iii. Align ESG-related policies among various ministries and agencies;
iv. Enhance GGP; and
v. Formulate legislations that support ESG initiatives.

Enablers:

i. Stakeholder engagements;
ii. Human capital and capabilities; and
iii. Policies and regulations.

	Deliverables	Implementing Agency and Collaborative Partner
B2.1	Conduct Government Sustainability Engagement Programme (GSEP) at federal, state and local councils to raise awareness among public sector officers.	MITI and MATRADE
B2.2	Promote appointment of sustainability officers at the federal, state and local authorities.	MITI, Ministries, State and Local Authorities

Strategy B3: Promote ESG training programmes tailored for MSMEs, encompassing globally acknowledged ESG Certification Courses.

Rational: On of the main challenges faced by MSMEs is lack of skills to conduct sustainability reporting. Therefore, it is vital that MSMEs to improve their capacity to identify and respond to the opportunities and challenges arising from a changing business environment. ESG training helps companies engage effectively with various stakeholders, including customers, employees, investors, suppliers and communities. In addition, proper training ensures that businesses understand their legal obligations and can comply with ESG-related laws and regulations, avoiding legal risks and penalties.

Strategic Outcome:

i. Improve ESG practices; and
ii. Appoint more sustainability officers.

Enablers

i. Stakeholder engagements;
ii. Human capital and capabilities; and
iii. Digitalisation.

	Deliverables	Implementing Agency and Collaborative Partner
B3.1	Secure funding for training initiatives by fostering collaborations with national training bodies, universities as well as international institutions and cooperation.	MITI, HRDC, Universities, UN and APEC
B3.2	Organise series of mentoring programmes that facilitates interaction between multinational corporations (MNCs) and MSMEs.	MITI, InvestKL, chambers and embassies
B3.3	Organise a series of coaching clinics to provide guidance on effectively utilisation of the i-ESGStart.	MITI and agencies, chambers & associations
B3.4	Establish onboarding sessions to facilitate the utilisation of the digital tool and platform.	MITI, Bursa and MGTC

Strategy B4: ESG training programmes for government officers.

Rational: Government officers need to have a solid understanding of ESG principles for several critical reasons as they play a pivotal role in shaping policies and regulations that impact various industries and sectors. A strong grasp of ESG principles ensures that policies are designed to encourage sustainable practices, reduce environmental impact, promote social welfare and uphold ethical governance. Government officers manage public funds and allocate budgets to various programmes. Understanding ESG allows them to prioritise projects that align with sustainability goals, yielding more impactful outcomes for the environment, society and the economy. In addition, ESG issues often require cross-sectoral collaboration and partnerships. Officers equipped with ESG knowledge can work effectively with businesses, NGOs and other stakeholders to create synergistic solutions that benefit all parties.

Strategic Outcome:

i. Informed decision making; and
ii. ESG-competent government officers.

Enablers:

i. Stakeholder engagements;
ii. Human capital and capabilities; and
iii. Digitalisation.

	Deliverables	Implementing Agency and Collaborative Partner
B4.1	Include ESG module in INTAN training programmes.	MITI and INTAN

Strategy B5: Establish a CSRMatch platform.

Rational: The concept of Corporate Social Responsibility (CSR) is generally understood as the responsibility to society beyond that of making profits for the shareholders.[36] In this context, many MNCs introduce CSR initiatives to ensure ethical operations, drive company growth, raise awareness about pressing societal issues and expand job opportunities. However, most of them face challenges in developing effective CSR schemes due to various factors, including lack of information and involvement of the community. Therefore, focusing on knowledge dissemination, and building local capacities is vital, as their absence limits the scope of CSR efforts and prevents MNCs from realising their intended benefits. To effectively address these challenges, it is imperative to enhance public awareness and understanding of the intricacies of CSR. This can be accomplished through strategic partnerships and collaborations with pertinent stakeholders, including ministries, government agencies, social enterprises, and non-governmental organisations (NGOs), facilitated by a dedicated matching platform. This platform serves as a nexus to align CSR programs with the unique needs of vulnerable communities, such as people with disabilities (PwDs), single mothers, or adult orphans who have grown up in centres and homes. The collaborative effort ensures that CSR initiatives are precisely targeted and highly effective in meeting the specific needs of these communities.

Strategic Outcome:

i. Easy access to information on companies' CSR programmes; and
ii. Effective implementation of CSR programmes.

Enablers:

i. Stakeholder engagements; and
ii. Digitalisation.

[36] Quak, Heilbron & van der Veen, 2012, p.3.

	Deliverables	Implementing Agency and Collaborative Partner
B5.1	Conduct engagements with relevant stakeholders to identify CSR programmes that meets the needs of both the MNCs and community.	MITI, MNCs, Social enterprises, MWFCD and Welfare Department
B5.2	CSRMatch - develop a digital platform to match the CSR programmes between the providers and the recipients.	MITI, MNCs, Social enterprises, MWFCD and Welfare Department

4.3 Financing

It is estimated that the Asia Pacific region needs USD1.5 trillion annually, equivalent to 5 percent of GDP to meet their climate goals along with new technologies and processes.[37] At the same time, developing Southeast Asia's green economy is expected to provide up to USD1 trillion in annual economic opportunities by 2030.[38] This demands a united effort between the public and private sectors to mobilise substantial financing to effectively decarbonise and advance ESG agenda, while fostering inclusive and broad-based growth. Furthermore, the provision of financing to assist SMEs in embracing ESG considerations will ensure their sustained participation in supply chains that are increasingly ESG-oriented.

Strategy C1: Establish financing market place

Rational: Access to funding and financing presents a significant challenge for companies, particularly MSMEs, seeking to adopt ESG practices. Establishing a financing marketplace plays a crucial role in enhancing the prospects of ESG projects to secure funding and investment opportunities. A financing marketplace, also known as a funding marketplace refers to an online platform that connects individuals, businesses, projects, or initiatives seeking funding with potential investors, lenders, or donors. This platform facilitates the process of raising capital for various purposes, including ESG projects, by bringing together parties interested in financial transactions.

Strategic Outcome:

i. Easy access to pool of funding and investment; and
ii. More companies to undertake ESG projects.

Enablers:

i. Stakeholder engagements;
ii. Digitalisation;
iii. Technology; and
iv. Financing and Incentives.

[37] Can this time be different? Challenges and opportunities for Asia-Pacific economics in the aftermath of COVID-19, UNESCAP, 2020.

[38] Southeast Asia's Green Economy: Pathway to Full Potential, Bain & Company, 2020.

	Deliverables	Implementing Agency and Collaborative Partner
C1.1	Forge strategic partnerships with funders and financiers who are committed to supporting a diverse range of ESG projects.	MITI, FIs and Investors
C1.2	Establish a virtual financing market place to match ESG projects with relevant funding / investment opportunities	MITI, MATRADE and MGTC
C1.3	Facilitate onboarding and hands-on guidance sessions to enhance comprehension and effective utilisation of the virtual marketplace.	MITI, MATRADE and MGTC

Strategy C2: Provide outcome-based incentives.

Rational: Outcome-based incentives are a strategic approach aimed at fostering and sustaining a high level of commitment among companies when it comes to integrating ESG initiatives into their operational frameworks. This method operates on the principle that tying incentives to specific, measurable outcomes creates a stronger impetus for companies to effectively implement and achieve their ESG goals. By adopting such incentives, companies not only enhance their competitive edge but also strive to deliver exemplary practices.

Strategic Outcome:

i. Reduced cost of implementation of ESG-related initiatives;
ii. More companies to undertake ESG programmes; and
iii. Showcase best practices.

Enablers:

i. Stakeholder engagements;
ii. Policies and regulations; and
iii. Financing and incentives.

	Deliverables	**Implementing Agency and Collaborative Partner**
C2.1	Assess and improve the existing Green Investment Tax Allowance (GITA) and Green Income Tax Exemption (GITE).	MITI, MIDA and MOF
C2.2	Provide grant for digital platform (under NIMP).	MITI (BiESG)
C2.3	Provide grant for product carbon footprint (under NIMP).	MITI (BiESG)
C2.4	Provide grant for energy audit.	SEDA
C2.5	Introduce ESG Excellent Award to recognise companies with ESG best practices	MITI
C2.6	Gradually set sustainability reports as a criterion for eligibility to receive grants from MITI and its agencies, among others, the Market Development Grant (MDG).	MITI and MATRADE
C2.7	Enhance GGP Programme by gradually considering sustainability reports as a criterion.	MITI, MOF and MGTC

Strategy C3: Promote Green Financing / ESG Financing Options.

Rational: Green Finance refers to any structured financial activity created to ensure a better environmental outcome. This includes an array of loans, debts or investments that focuses on encouraging development of green projects or minimising its impact on the environment. Financial institutions are introducing a range of green financing products, such as green loans, green bonds and sustainability-linked loans. These products often come with preferential terms, reduced interest rates, or other incentives to encourage businesses and individuals to adopt green practices. Green financing directs funds towards projects and initiatives that have a positive impact on the environment such as the RE, EE and CCS technologies. By supporting these initiatives, green financing contributes to reducing pollution, conserving natural resources and mitigating climate change.

Strategic Outcome

i. Easy access to pool of funding;
ii. More companies to undertake ESG projects;
iii. Promote responsible and ethical financial choices; and
iv. Enhance growth of industries that prioritises sustainability.

Enablers:

i. Stakeholder engagements;
ii. Digitalisation;
iii. Technology; and
iv. Financing and incentives.

	Deliverables	Implementing Agency and Collaborative Partner
C3.1	Promote Low Carbon Transition Fund (LCTF) by Bank Negara Malaysia.	MITI, BNM and FIs
C3.2	Collaborate with FIs and investors to promote ESG-related financing and funding.	MITI, FIs and Investors
C3.3	Attract investment into green products and services through the Bursa's CSI.	MITI and Bursa

BOX 4

Low Carbon Transition Facility

Bank Negara Malaysia (BNM) introduced the Low Carbon Transition Facility (LCTF) in 2022 to support small and medium enterprises (SMEs) in adopting sustainable and low carbon practices. Under LCTF, participating banks will match the RM1.0 billion LCTF provided by BNM with RM1.0 billion of their own funds. This effort is in line with the Government's ambition to achieve net zero GHG emissions as early as 2050 and BNM's commitment in the Financial Sector Blueprint 2022 – 2026 to scale up green finance for a more sustainable Malaysia. The LCTF is open for SMEs in all sectors that are committed to transition their business operations towards low carbon operations. This includes but not limited to obtaining sustainability certification, increasing use of sustainable materials for production, improving energy efficiency of buildings and appliances, and installing on-site generation equipment of renewable energy.

BNM recognises that technical know-how is equally crucial for impactful and successful transition of SMEs. In view of this, RM400 million of the RM2.0 billion LCTF scheme is specifically allocated for Greening Value Chain (GVC) programme which incorporates technical capacity building component for measurement of greenhouse gas (GHG) emissions as part of the financing scheme. This program aims to assist SMEs that are part of global supply chains to green their operations via its complimentary technical workshops, financial advisory services, and emission measurement tools.

Eligible SMEs will be able to obtain financing up to RM10 million (per SME) to fund working capital or capital expenditures related to low-carbon practices. The tenure of financing is up to 10 years, with maximum financing rate of 5.0% per annum, inclusive of any guarantee fee. The RM2.0 billion facility has been available from February 2022 until full utilisation.

Interested SMEs can apply directly from participating commercial banks, Islamic banks or development financial institutions (PFIs) regulated by BNM. All applications will be subjected to assessments by the PFIs. In assessing the applications, PFIs typically look at SMEs plan and commitment to transition.

Strategy C4: Promote net-zero technologies

Rational: Net-zero technologies encompass a spectrum of innovative solutions and strategies aimed at achieving a delicate equilibrium between the GHG emissions and the quantity that is removed or offset. This overarching goal drives advancements in numerous sectors, including RE, EE, CCS, carbon removal and sequestration, as well as circular economy solutions. Aligned with the nation's aspiration to attain net zero GHG emissions by 2050, it becomes imperative to accurately delineate the decarbonisation trajectory. This trajectory outlines the potential reduction in GHG emissions achievable through the widespread adoption and implementation of net-zero technologies. By estimating the extent to which these technologies can curtail emissions, it becomes possible to chart a strategic course toward realising the ambitious net-zero target. Furthermore, creating a sandbox specifically for net-zero technologies involves setting up a controlled environment that facilitates the development, testing and refinement of innovative solutions aimed at achieving net-zero emissions. This sandbox serves as an experimental space where businesses, researchers, start-ups and stakeholders can collaborate to explore, validate and advance a wide range of technologies designed to significantly reduce or offset GHG emissions.

Strategic Outcome:

i. Adoption of new technologies;
ii. Attract investment into new areas;
iii. Support to achieve nation’s NDC target;
iv. Create jobs in sectors such as RE, EE and sustainable transportation; and
v. Fosters international cooperation and partnerships.

Enablers:

i. Stakeholder engagements;
ii. Technology; and
iii. Policies and regulations.

	Deliverables	Implementing Agency and Collaborative Partner
C4.1	Conduct decarbonisation pathway modelling.	MITI, NRECC and UNITEN
C4.2	Establish sand-box to conduct R&D for green technologies, including but not limited to hydrogen, biogas, biomass and carbon capture.	MITI, Universities and MOSTI

4.4 Market Mechanism

In the carbon market, market mechanism is referred to as a "carbon trading" or "carbon pricing" system, which is designed to address the issue of carbon emissions and climate change by creating financial incentives for reducing GHG emissions. The core idea is to put a price on carbon emissions, encouraging entities to reduce their emissions and invest in cleaner technologies.

In addition, market mechanisms include various strategies, practices and tools that are used by investors, companies and financial institutions to incorporate ESG considerations into investment decisions and corporate operations. ESG market mechanisms are designed to promote more responsible and sustainable behaviour across the business world. They encourage companies to consider their impact on the ESG structures, recognising that these factors can affect long-term financial performance and overall sustainability.

Strategy D1: Design Carbon Pricing Instruments

Rational: Carbon pricing is an instrument that captures the external costs of GHG emissions—the costs of emissions that the public pays for, such as damage to crops, health care costs from heat waves and droughts as well as loss of property from flooding and sea level rise—and ties them to their sources through a price, usually in the form of a price on the CO_2 emitted.

A price on carbon helps shift the burden for the damage from GHG emissions back to those who are responsible for it and who can avoid it. Instead of dictating who should reduce emissions where and how, a carbon price provides an economic signal to emitters and allows them to decide to either transform their activities and lower their emissions, or continue emitting and paying for their emissions. In this way, the overall environmental goal is achieved in the most flexible and least-cost way to society. Placing an adequate price on GHG emissions is of fundamental relevance to internalise the external cost of climate change in the broadest possible range of economic decision making and in setting economic incentives for clean development. It can help to mobilise the financial investments required to stimulate clean technology and market innovation as well as fuelling new, low-carbon drivers of economic growth.[39]

Strategic Outcome:

i. Reduce GHG emissions;

ii. Develop new technologies and industries, creating economic opportunities and competitiveness;

[39] World Bank Carbon Pricing Dashboard.

iii. Clear market signal that carbon emissions have a cost, encouraging businesses to incorporate carbon considerations into their long-term planning and investment decisions;

iv. Encourage the transition to cleaner energy sources; and

v. Comply with international carbon border adjustment mechanism (CBAM).

Enablers:

i. Stakeholder engagements; and

ii. Policies and regulations.

	Deliverables	Implementing Agency and Collaborative Partner
D1.1	Design Carbon Price Index (CPI) in partnership with MOF, NRECC and the World Bank to accurately gauge the economic impact of carbon pricing mechanisms and cost implications of reducing carbon emissions across various sectors.	MITI, MOF, NRECC and the World Bank
D1.2	Enhance industry awareness regarding the advantages of carbon trading, carbon taxes and carbon offset mechanisms, highlighting their potential to drive sustainable practices, reduce emissions and contribute to environmental stewardship.	MITI, MITI Agencies, associations and chambers
D1.3	Promote Voluntary Carbon Market (VCM) to enable organisations to voluntarily invest in projects that reduce or remove GHG emissions and drive positive environmental impact.	MITI, Bursa, associations and chambers

Strategy D2: Launch SDG Investor Map.

Rational: In today's world, the need for SDG aligned investments has never been more critical. SDG-aligned investments have the power to drive real-world change. By channelling funds into projects and companies that actively contribute to achieving the SDGs, investors become agents of positive impact, creating meaningful change at scale. Towards this end, the SDG Investor Map is a market intelligence tool that helps the private sector identify investment themes in emerging markets which have significant potential to advance the SDGs that are aligned to government policies and sustainable national development needs.

Strategic Outcome:

i. SDG-aligned investments; and
ii. Achieve SDGs.

Enablers:

i. Stakeholder engagements;
ii. Digitalisation;
iii. Technology; and
iv. Human capital and capabilities.

	Deliverables	Implementing Agency and Collaborative Partner
D2.1	Collaborate with MIDA and UNDP to develop SDG Investor Map that identifies Investment Opportunity Areas (IOAs).	MITI, MIDA and UNDP
D2.2	Launch SDG Investor Map on UNDP, MIDA and MITI's platform.	MITI, MIDA and UNDP
D2.3	Plan and execute post-map programmes in collaboration with UNDP and MIDA.	MITI, MIDA, UNDP, FIs, SC and Investors

Chapter 5: Conclusion

The future is ESG…

ESG considerations are undoubtedly becoming increasingly important in today's business landscape. They are not only a necessity for attracting investors, financiers and customers but also essential for aligning with international standards. Nevertheless, many MSMEs face significant challenges in adopting ESG practices due to limited resources, including skills and financing.

The manufacturing sector is a crucial driver of Malaysia's economic growth, but it also poses risks in terms of environmental and social impact, such as GHG emissions and the well-being of its employees. The i-ESG Framework is a strategic initiative designed to facilitate the adoption and improvement of ESG practices within the manufacturing sector. Its primary goal is to accelerate progress towards achieving the ESG goals as outlined in the NIP and the NIMP. Consequently, the framework aims to encourage more manufacturers to embrace ESG practices, enhance Malaysian exports, attract investment that aligns with SDGs and track GHG emissions by industries in the manufacturing sector.

The i-ESG Framework envisions the manufacturing sector as economically beneficial, environmentally sustainable and socially equitable, with three key missions:

a. support manufacturing firms to learn, be agile and adopt ESG practices;
b. transform challenges into opportunities; and
c. foster symbiotic public-private partnerships for value creation.

The i-ESG Framework comprises four (4) components: standards, capacity building, financing and market mechanisms. These components are supported by six (6) key enablers, namely stakeholder engagement, human capital and capabilities, digitalisation, technology, financing and incentives as well as policies and regulations. The framework is guided by a phased approach, beginning with the "Just Transition" (Phase 1.0) from 2024 to 2026 and followed by the "Accelerate ESG Practices" (Phase 2.0) from 2027 to 2030.

The i-ESG Framework 1.0, centred around the principle of "Just Transition," is a commitment to inclusivity, ensuring that no one is left behind in the pursuit of sustainability and environmental objectives. It endeavours to strike a harmonious balance between environmental and social factors during times of substantial transformation. Consequently, this Framework assumes a pivotal role in advancing ESG adoption within the manufacturing sector. It urges businesses to realign their priorities, catalysing a paradigm shift away from profit-centric approaches and toward a more sustainable trajectory. During the Just Transition Phase, manufacturing companies are supported by creating an ecosystem that helps them to embark on sustainability practices. This includes self-readiness assessment, outreach, training and mentoring programmes, starter kit, financing options as well as various studies to identify gaps and introduce appropriate policies and support systems. **The i-ESG Framework 1.0 lays the groundwork and fosters the development of a robust ecosystem to help companies embark on their ESG journey, ensuring their readiness to meet the increasingly rigorous demands of Phase 2.0.**

In summary, the i-ESG Framework is a comprehensive and strategic approach to addressing ESG challenges in the Malaysian manufacturing sector. It recognises the importance of sustainability and aims to support businesses in adopting ESG practices while fostering collaboration between the public and private sectors to drive economic, environmental and social progress.