



# SIRIM *Link*

MAKE A POSITIVE IMPACT





CALL US at Toll Free : 1 300 88 7035 | [www.sirim.my](http://www.sirim.my)

*Best Partner for Innovation*





# Sustainability is Here to Stay

The world is ramping up its efforts towards achieving sustainability. Organisations everywhere are now embracing Environmental, Social and Governance (ESG) pillars in their daily operations. Not only does this help to safeguard our future but it can also enhance our present wellbeing, improve operational efficiency and productivity, and much more. It is a win-win situation for everybody, really.

Now, it is no longer an issue of whether you should or should not adhere to ESG principles. It is more about WHEN you can do so; the sooner the better, of course. SIRIM is here to help you make your transition to ESG-compliance smoother. We offer vast support in the form of training, certifications and calibration services, and have even gotten the ball rolling for the creation of eco-industrial parks in the country. More importantly, we understand that change has to start from within, and have been steadily taking steps towards nurturing a more sustainable way of life.

Remember, we ultimately only have one home. Together, let us all do our part to make it better for all.

## ADVISOR

Dato' Dr. Ahmad Sabirin Arshad

## CHAIRPERSON

Dr. Kartini Noorsal

## MEMBERS

Aliza Zainal Munir  
Dr. Azizan Abdul Aziz  
Gooi Chye Seong  
Hasmafatiha Harun  
Irene Safinaz Hassan  
Mohd Zurani Abdul Wahab  
Nurazlina Ismail  
Patricia Limbang  
Roslina Harun  
Syazrie Adley Nor Azman

## PUBLISHED AND PRINTED BY

SIRIM Berhad  
1, Persiaran Dato' Menteri  
Section 2, 40700 Shah Alam, Selangor

*SIRIMLink is an official publication of SIRIM Berhad.  
The bulletin is distributed free to our clients and  
associates, business and research establishments.*



Copyright © SIRIM Berhad.

For further information on the articles  
featured in this magazine, please contact:  
Strategic Communication Section  
SIRIM Berhad

Tel: 03-5544 6772  
Fax: 03-5544 6745

Email: [publications@sirim.my](mailto:publications@sirim.my)

inside this issue

# HIGHLIGHTS



pg. 6



## Driving ESG to Advance the Nation



**NOR'AFIZA SAIM**  
*Senior General Manager,  
Office of President  
and Group Chief Executive*



pg. 10



## Blueprint for Sustainability



**ISNAZUNITA ISMAIL**  
*General Manager,  
Environmental Technology  
Research Centre at SIRIM*



pg. 14



## Walking the Green Talk



**MOHD FAUZI ISMAIL**  
*Director, Industrial Centre  
of Innovation (ICI) in  
Energy Management at  
SIRIM Industrial Research*



environmental

social  
governance



pg. 18



### Building a Brighter Future with Certifications



**MOHD HAMIM IMAM MUSTAIN**  
*Senior General Manager,  
Management System Certification  
at SIRIM QAS International Sdn Bhd*



pg. 22



### Helping Industry Players to Make a Positive Impact



**ANIJAH PANGAT**  
*Principal Consultant, Management  
System Standards Section at SIRIM  
Training Services Sdn Bhd*



pg. 26



### A Measure of Sustainability



**DR. FARIDAH HUSSAIN**  
*Chief Executive Officer  
of SIRIM Standards  
Technology Sdn Bhd*



>> The term ESG has become an important catchphrase in the business world. But how many of us truly understand what it entails and how necessary it is? <<



**NOR'AFIZA SAIM**

Senior General Manager,  
Office of President  
and Group Chief Executive

# Driving ESG to Advance the Nation



>> *“Now, ESG compliance has become a requirement for conducting business. The more ESG-compliant an organisation is, the more likely it is that it will attract more stakeholders.”* <<

ESG has been gaining traction across the globe in recent years, and for good reason. This concept advocates three instrumental pillars, namely Environmental, Social and Governance, in an organisation’s daily operations, providing an opportunity for the organisation to grow sustainably.

Today, ESG has become a key determinant for various decision-making tiers, including governments, businesses, consumers and investors. It is perceived as an avenue for organisations to establish their unique selling propositions, build trust with their stakeholders and create strategic and valuable impact – within the organisation, the community and beyond.

“Now, ESG compliance has become a requirement for conducting business. The more ESG-compliant an organisation is, the more likely it is that it will attract more stakeholders,” explained Nor’afiza Saim, Senior General Manager, Office of President and Group Chief Executive.

## ESG Excellence

The three main pillars of ESG are:

### ~ Environmental



Safeguarding our ecological systems, by addressing climate change, reducing greenhouse gas emissions, and reducing wastes and environmental pollution

### ~ Social



Elevating the wellbeing of communities, such as reducing disparities, protecting their health and safety, and human rights

### ~ Governance



Implementing good corporate governance such as transparency and integrity in making the right decisions, generating value for all stakeholders and business ethics

Most people are familiar with the first pillar, Environmental, which encompasses efforts to protect and care for the environment and reduce one's environmental footprint. These could include minimising waste and pollution as well as implementing green procurement practices. The Social pillar, on the other hand, is about ensuring that one's business is bettering the community, which could include their immediate neighbours, people from specific groups or even an entire nation, region and beyond.

The third pillar, Governance, looks at how an organisation is directed, overseen and held accountable for achieving its purpose. Governance is exercised throughout the organisation by governing groups including the stakeholders, governing body, managers and other internal functions of the organisation. Everybody plays a role in ascertaining that the organisation practises good governance to realise effective performance, responsible stewardship and ethical behaviour. According to Nor'afiza, the board of directors in an organisation will typically use the Malaysian Code of Governance as a guideline for corporate governance, which emphasises board leadership, effective audits, risk management and stakeholder engagements.

"To an extent, the three pillars are interrelated. You could embrace the usage of eco-friendly materials and good manufacturing practices to facilitate the growth of your business and improve the standard of living for your employees, consumers and the communities around you. The important thing is to take the effort to adopt this approach in our day-to-day activities," she shared.

### COMMITTING TO THE FUTURE

Malaysia has been intensifying its efforts on the ESG front, making it a central feature in the 12th Malaysia Plan's three dimensions of economic empowerment, environmental sustainability and social re-engineering. Among the country's more prominent endeavours is its pledge to become a carbon neutral economy by 2050. To support this, instruments such as carbon pricing and carbon trading will soon be introduced.

The country is also looking at methods for facilitating cleaner electricity generation. Among others, it has committed not to build any more coal-fired power plants. Instead, coal will be replaced by fuel generated from biomass waste such as oil palm empty fruit bunches, which opens up new business opportunities for the



>> "To an extent, the three pillars are interrelated. You could embrace the usage of eco-friendly materials and good manufacturing practices to facilitate the growth of your business and improve the standard of living for your employees, consumers and the communities around you. The important thing is to take the effort to adopt this approach in our day-to-day activities." <<

oil palm industry. Consequently, new laws related to energy efficiency and conservation will be introduced. In fact, it is anticipated that renewable energy from solar, biomass and biogas will increase to 31% of the total installed capacity by the year 2025.

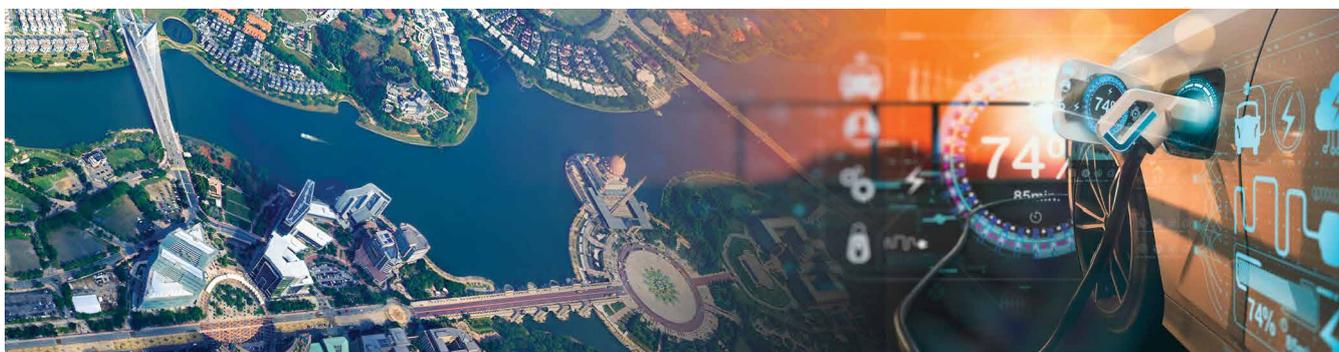
Additionally, endeavours to develop resilient green and smart cities will be intensified. SIRIM is set to play an important role in this respect.

“With the strong commitment of the government, awareness of ESG principles is growing steadily. Hopefully, there will be an increase in ESG-compliance and reporting from both the public and private sectors. With continuous improvements being made, Malaysia will be able to stand tall on the global stage,” said Nor’afiza.

Nevertheless, there are some challenges that need to be overcome to encourage industry buy-in. First is a lack of knowledge among the industry players. “There are organisations that do not truly understand what ESG is about and, as such, may not even know how to get started. The most important thing is for the top management to embrace the ESG principles and consequently build a culture that incorporates ESG initiatives in their daily operations,” explained Nor’afiza.

Stemming from this lack of knowledge, some organisations have a negative perception of ESG, viewing it as a risk rather than an opportunity. “Many people think that adopting the ESG principles can be expensive, with investment in technologies and manpower needed. In actual fact, they can take small and simple first steps such as reducing and recycling their waste, monitoring energy consumption or establishing an anti-corruption policy. When you reduce waste, you reduce cost and increase your earnings. Waste can be turned into wealth. Agriculture waste can be turned into fertilisers, biogas, pulp and paper, among others,” she elaborated.

*>> “With the strong commitment of the government, awareness of ESG principles is growing steadily. Hopefully, there will be an increase in ESG-compliance and reporting from both the public and private sectors. With continuous improvements being made, Malaysia will be able to stand tall on the global stage.” <<*



## GOING GREEN

SIRIM plays an instrumental role in supporting Malaysia’s endeavours to encourage the adoption of ESG among industry players. This includes focusing on carbon credit and pricing, renewable energy, sustainable/smart cities, green economy and circular economy.

“We have been assisting the industries to incorporate ESG initiatives via the calculation of carbon footprints and emissions, verification of ESG performance and sustainability reports, as well as the application of frontier technologies to aid in the reduction of greenhouse gas emission, encourage waste management and promote green initiatives, to name a few,” shared Nor’afiza.

By becoming more ESG-compliant, these industry players will be able to attract a wider pool of investors. An increase in the number of investors will help to strengthen our Ringgit and create a better economy. “It becomes a chain reaction, where we generate wealth while protecting the planet, which leads to an enhanced social impact and improved economy,” she added.

## Embedding ESG

SIRIM embraces ESG in its daily activities. Among them are:

### ENVIRONMENT

- Adoption of Environmental Management Systems according to ISO 14001, with commitment to comply with the Environmental Quality Act
- Provision of certifications to industries and organisations that comply with the ISO 14001 Environmental Management Systems
- Establishment of initiatives including carbon footprint reduction, waste management, tree planting, usage of renewable energy and green procurement practices under the Greener SIRIM for Greener Malaysia strategy

### SOCIAL

- Establishment of a code of business ethics and other policies & procedures on social impacts resulting from operations
- Adoption of occupational health and safety management systems according to ISO 45001, where workplace health and safety are priority
- Compliance with the Employment Act and other regulations related to social impacts

### GOVERNANCE

- Adoption of anti-bribery management systems that comply with the Malaysian Anti-Corruption Commission Act
- Implementation of Enterprise Risk Management to protect stakeholder interests while meeting the organisation's purpose and objectives
- Structure, composition and execution duties of Board of Directors that align with the Malaysian Code of Corporate Governance

Currently, SIRIM is also in the midst of developing an eco-industrial park together with the industry partners and international investors. The project involves transforming biomass, which is waste from the oil palm industry, into valuable products that include pellets, activated carbon and plywood.

"Malaysia has a lot of biomass. Typically all this will be put aside to decompose so they can be used as fertiliser, but this is a very slow process. With the pellet plant, the possibilities are expanded. There are so many things that you can produce – even hydrogen!" exclaimed Nor'afiza.

This project is envisioned to not only generate income by creating wealth from waste, but also improve the standard of living of the communities there. "The plants will require workers. We can train and transfer the technology and turn them into skilled workers. Eventually the community will be more aware about the concept of turning waste to wealth and ESG in general for the benefit of all," she elaborated.

## WALKING THE TALK

According to Nor'afiza, SIRIM is committed to adopting ESG principles to benefit, not only the organisation, but also local communities, industries and the country at large. As a driver and solutions provider on ESG, SIRIM anticipates improving the quality of life of Malaysians and helping the nation to achieve the Sustainable Development Goals set out by the United Nations.

In taking the lead, SIRIM has established a 10-year strategic plan covering 2018 to 2027. Its fourth strategic thrust in this plan, Greener SIRIM for Greener Malaysia, underscores the organisation's various initiatives to safeguard the environment, such as a tree planting programme, green procurements and installation of a solar power system.

Presently, SIRIM is in the process of establishing a Group Sustainability Department, which will be responsible for all ESG-related activities within the organisation. The department aims to enhance coordination and execution of the ESG strategies and initiatives more efficiently, and is tasked with keeping up to date with the latest ESG policies, standards and technologies at national and international level, identifying ESG risks, reducing the organisation's environmental footprint and developing annual ESG reports, which will be disseminated to all stakeholders.

"SIRIM must first comply with ESG principles before we can lead others. We have to be seen as the role model. Our goal is to be a carbon-neutral organisation. Currently, we are providing ESG solutions to industries through our various business units, and we will continue aggressively with our efforts in the near future," said Nor'afiza.

In order to ensure that we are able to preserve the world so that the needs of our future generations are not compromised, ESG has to be embraced by every layer of society. "ESG should be embedded in our day-to-day activities. It should not be something that is just shouldered by corporate players. We all live here, and it is our responsibility to protect the environment and humanity. It has to start from the individual and families, so that it can be effectively adopted by organisations, countries and the world!" she exclaimed.

>> "SIRIM must first comply with ESG principles before we can lead others. We have to be seen as the role model. Our goal is to be a carbon-neutral organisation. Currently, we are providing ESG solutions to industries through our various business units, and we will continue aggressively with our efforts in the near future." <<

>> While industrial estates are fundamental in the socioeconomic growth of a nation, they can potentially bring about adverse impacts to the environment. The introduction of eco-industrial parks marks a positive step forward in addressing this. <<



**ISNAZUNITA ISMAIL**

General Manager, Environmental Technology Research Centre at SIRIM

## Blueprint for Sustainability



>> *“As a manufacturer, your primary activity is producing items. In a typical industrial estate, this would be on a large scale. But what happens to the resultant by-products and waste?” <<*

The popularity of eco-industrial parks (EIPs) is on the rise. According to the World Bank, there were only 50 EIPs in 2000, but just 18 years later, the number had increased to 250. SIRIM jumped on the bandwagon in 2020 with the debut of its Technology-Enabled Support for the Development of Eco-Industrial Parks: Intervention & Digitalisation project, or MyEIP, for short. Among others, the project aims to pave the way for the transformation of brownfield industrial estates to EIPs.

MyEIP was conceived based on the 12th Malaysia Plan, which outlines the need to boost the productivity of organisations across all sectors in Malaysia via the incorporation of green practices. It has the central objective of building a resilient and sustainable business structure whilst creating a new economy in the country without compromising societal and environmental needs.

“As a manufacturer, your primary activity is producing items. In a typical industrial estate, this would be on a large scale. But what happens to the resultant by-products and waste?” queried Isnazunita Ismail, General Manager of the Environmental Technology Research Centre at SIRIM.

## Defining EIPs

The United Nations Industrial Development Organization (UNIDO) defines an eco-industrial park (EIP) as “a community of businesses located on a common property in which businesses seek to achieve enhanced environmental, economic and social performance through collaboration in managing environmental and resource issues.” In essence, the EIP extends the concept of an industrial estate, park or zone to address the increased need for sustainability.

In 2017, UNIDO, together with the World Bank Group and Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ) developed an international guideline for EIPs that centres on four key categories:

- ~~ park management performance
- ~~ environmental performance
- ~~ social performance
- ~~ economic performance



This is the premise for MyEIP. SIRIM will look into how the industry players in an industrial estate can inculcate a circular model while stimulating collaborations between the industrial park manager and its tenant companies to encourage activities like resource management and the adoption of ESG practices in their business operations.

For example, traditionally, the various organisations within an industrial estate will dispose of their waste independently. The EIP model encourages efficiency of resources and lessens pollution, allowing for businesses to reduce their raw (virgin) material consumption and expenses, and increase their revenue. In addition, the demonstration of effective and sustainable park management can also make Malaysia’s EIPs more competitive globally.

According to Isnazunita, with technological intervention, the by-products of one organisation can be transformed into a resource for another company. This is one example of an industrial symbiosis opportunity.

“Before an organisation sells its by-products to an external party outside the industrial park, it should first look at the tenant companies within its vicinity. This can help to reduce logistics costs,” she said.

Isnazunita acknowledges that the transaction may not be direct as the by-product may have to be converted into something that the next organisation will want, which may require the participation of a third organisation. “However, if that is not possible, SIRIM can assist in looking for the necessary technologies and capabilities from our international counterparts so that the by-products/wastes can be converted using innovative and clean technologies accordingly,” she added.

## MYRIAD BENEFITS

The EIPs in Malaysia will incorporate numerous concepts, such as company-level resource efficiency leading to industrial symbiosis, renewable energy solutions, advanced wastewater treatments, and resilient infrastructure to climate change and social amenities. By focusing on better environmental, economic and social performance, they are anticipated to yield numerous benefits.

First and foremost, by upholding the concept of industrial symbiosis in their operations, the EIPs will be able to generate large-scale environmental benefits, including the reduction of virgin material usage and wastage, mitigating greenhouse gas emissions and other toxic materials, and much more.

In terms of economic benefits, EIPs can encourage both direct and indirect employment opportunities. Improved resource efficiency also offers better competitive advantages in the wider economy. Other spillover effects include potential for higher foreign investments and access to investment capital, upskilling and technology transfer, and better brand image.

## Objectives of MyEIP

The objectives of MyEIP include:

- ~~ Facilitating the transformation of brownfield industrial estates to EIPs based on international good practices
- ~~ Demonstrating the viability and benefits of EIP approaches in scaling up resource productivity and improving economic, environmental and social performances of businesses
- ~~ Contributing to inclusive and sustainable industrial development in the country



All these can lead to numerous social benefits, such as improved health and safety of the workers as well as the elevation of the overall wellbeing of the surrounding communities.

### A CALCULATED PROCESS

To get the ball rolling, a set of performance criteria based on the ESG principles for both the park manager and tenants has to be established before pilot tests are conducted to ascertain the feasibility for transforming the industrial estate into an EIP. Ideally, the set criteria will enable the classification of the participants at different levels to determine the financial investments required and incentives that can be obtained.

“We just started discussion on this in May, actually. Basically, we want to be able to acknowledge organisations that are working hard to ensure that they are not harming the environment. We’re looking at implementing some carrot-and-stick initiatives to further motivate them,” shared Isnazunita.

Viewing this from an industrial estate level offers a broader perspective. After all, industries are a subset of cities. In fact, they often form the heart of cities. Hence, with all the players coming together to protect their surroundings and communities around them, the country as a whole will eventually be able to attain a better way of life.

Upon identifying an industrial estate, SIRIM will attempt to approach its tenants, either via a tenant association, if available, or individually to promote its Resource Efficiency and Industrial Symbiosis Opportunity (REISO) assessment.

“Of course, prior to this, we will provide some training to the organisations’ representatives so that they are aware of the data that we will require. Thereafter, we’ll send in a qualified assessor who will work closely with the representatives to get a baseline of the by-products being produced and energy wastage occurring, for example.

“This is where we also act as a middle person to connect an organisation that has the by-products with another organisation that requires that by-product. If needed, we can prepare a techno-economic study on the feasibility of



>> “We just started discussion on this in May, actually. Basically, we want to be able to acknowledge organisations that are working hard to ensure that they are not harming the environment. We’re looking at implementing some carrot-and-stick initiatives to further motivate them.” <<

having a shared facility for both organisations. However, it will be up to them if they wish to implement this or not," explained Isnazunita.

Registration for the REISO assessment is currently in progress. The project invites tenant companies to apply at <https://forms.office.com/r/zTWWwiKcVG> to schedule your assessment for subsequent batches in 2023 and beyond.

In today's global marketplace, organisations should assume a broader perspective. Besides having the proper infrastructure in place, it is also necessary to encourage knowledge sharing and dissemination, and capacity building. Upon driving the establishments of EIPs, SIRIM is able to provide the resources to help organisations to improve their environmental management.

"If you are an environmentally responsible organisation, your products tend to be better accepted. In the long-term, we want to position Malaysia's EIPs to become the linchpin that propels Malaysia's development as we intensify our commitment to ESG principles. Consequently, SIRIM looks forward to playing a bigger role in the co-creation ecosystem. We will support the growth of EIPs as an enabler to assist all parties – the government, park managers, tenants and all other relevant authorities – to meet the necessary requirements for the betterment of Malaysia!" shared Isnazunita.

### An Eco Friend

SIRIM offers numerous initiatives to help the government and organisations to manage their environmental responsibility. One of them is its Lifecycle Assessment (LCA) for industry players.

The assessment takes into account the entire lifecycle of the product, from the ideation process right until the end of its life. It is considered a tool to measure how the product actually impacts the environment, and can be used to identify options for improvements where necessary.

### Exemplary EIPs

The potential positive impacts of EIPs are plenty, as demonstrated by two of the world's leading EIPs.

	Kalundborg Symbiosis	Ulsan Mipo and Onsan Industrial Park
Location	Kalundborg, Denmark	South Korea
Estimated Savings	Over €24 million per annum	\$554 million
Socioeconomic Benefits	Reduced emission of CO2 by 635,000 tons Reduced energy and water consumption	Reduced emission of CO2 by 665,712 tons Reused 79,475 tons of water

Sources: <https://circulareconomy.europa.eu/platform/en/good-practices/kalundborg-symbiosis-six-decades-circular-approach-production>

<https://www.worldbank.org/en/news/feature/2018/01/23/eco-industrial-parks-emerge-as-an-effective-approach-to-sustainable-growth>



>> "If you are an environmentally responsible organisation, your products tend to be better accepted. In the long-term, we want to position Malaysia's EIPs to become the linchpin that propels Malaysia's development as we intensify our commitment to ESG principles. Consequently, SIRIM looks forward to playing a bigger role in the co-creation ecosystem. We will support the growth of EIPs as an enabler to assist all parties – the government, park managers, tenants and all other relevant authorities – to meet the necessary requirements for the betterment of Malaysia!" <<

>> Adopting a greener way of life is instrumental for pursuing the path of sustainability towards achieving socioeconomic growth. SIRIM upholds its role as an enabler with strategic initiatives aimed at bolstering its efforts both internally and throughout the nation. <<



**MOHD FAUZI ISMAIL**

*Director of the Industrial Centre of Innovation (ICI) in Energy Management at SIRIM Industrial Research*

## Walking the Green Talk

>> *"We are looking at going green from two perspectives: the first focuses on prescribing green practices within our organisation, while the second involves promoting green technology to the local industries. It is important that the transformation starts with SIRIM first. This not only accentuates our commitment in supporting the government's sustainable journey but also reinforces our core fundamentals so we will be able to reach the diverse industries more effectively."* <<



With a growing global focus on sustainability, having an environmentally friendly outlook is one way to move forward. In line with the Malaysian government's commitment to becoming a carbon-neutral nation by 2050, SIRIM debuted its Greener SIRIM for Greener Malaysia initiative.

Greener SIRIM for Greener Malaysia is the fourth thrust in SIRIM's 10-year Strategic Plan (2018 to 2027). With a goal of helping SIRIM to reduce its environmental footprint and participate in a sustainable Malaysia, it underscores importance of walking the talk.

"We are looking at going green from two perspectives: the first focuses on prescribing green practices within our organisation, while the second involves promoting green technology to the local industries. It is important that the transformation starts with SIRIM first. This not only accentuates our commitment in supporting the government's sustainable journey but also reinforces our core fundamentals so we will be able to reach the diverse industries more effectively," said Mohd Fauzi Ismail, Director of the Industrial Centre of Innovation (ICI) in Energy Management at SIRIM Industrial Research.

### Setting Green Standards

The 12th Malaysia Plan incorporates an Environment cluster, which includes:

 Advancing green growth for sustainability and resilience

 Enhancing energy sustainability and transforming the water sector

Source: <https://rmke12.epu.gov.my/>

Among others, one of SIRIM's key initiatives is in upholding good energy management by including solar power to serve the organisation's needs, in addition to electricity from the grid. This involves installing solar photovoltaic panels on the rooftops of its buildings to reduce energy intake generated from non-renewable sources, such as coal, oil and gas. Also in the works are better water management, green procurement, waste management, green technology and tree planting activities.

According to Mohd Fauzi, it is essential for everybody to be in synchrony when it comes to the implementation of the green initiatives. "While we have a department that takes charge of the programmes under the fourth thrust, the involvement has to be inclusive. It is not about the respective department's programme or selected individuals' programme. It is SIRIM's programme! We shouldn't look at this as a short-term campaign but immerse ourselves so that it becomes a SIRIM culture."



>> *"This requires the wide-ranging and in-depth involvement of all stakeholders to rise up and take on the challenge towards becoming responsible citizens for a greener planet. To this extent, SIRIM has guidelines that encapsulate our initiatives and business practices, reflecting our commitment towards a green agenda."* <<

#### A GREENER WAY OF LIFE

As a green organisation, SIRIM aspires to promote a low carbon economy concept in the country. "This requires the wide-ranging and in-depth involvement of all stakeholders to rise up and take on the challenge towards becoming responsible citizens for a greener planet. To this extent, SIRIM has guidelines that encapsulate our initiatives and business practices, reflecting our commitment towards a green agenda," shared Mohd Fauzi.

A main concern lies in energy usage as that contributes to the emission of a significant amount of carbon dioxide. To address this, SIRIM focuses on green energy programmes to facilitate the efficient use of energy as well as the transition from normal energy resources that are based on fossil fuels to renewable energy resources.

We also need to be able to manage our natural resources better, including water usage. "We know that our natural resources are finite. As responsible corporate citizens, we need to ensure that they are used efficiently without wastage occurring," he said before stressing on the importance of proper waste management.

"All our activities and operations generate some form of waste. These have to be disposed of somewhere. As such, the less waste we generate, the better! We have to figure out how to lengthen the lifespan of the products we use. Our immediate goal is to inculcate the habit of recycling."



>> *"All our activities and operations generate some form of waste. These have to be disposed of somewhere. As such, the less waste we generate, the better! We have to figure out how to lengthen the lifespan of the products we use. Our immediate goal is to inculcate the habit of recycling."* <<

## Green Procurement Practices

In 2020, SIRIM implemented two government green procurement (GPP) pilot projects, namely the acquisition of MyHIJAU-certified products for painting services and environmentally friendly gas (R410A) for air-conditioner refrigerants.

In the first instance, contractors painting SIRIM's buildings are required to use paints that carry the SIRIM eco-label. These contain low or no volatile organic compounds (VOC), making them safer for the environment and human health.

In terms of air-conditioner refrigerants, the typical kinds can contribute to ozone depletion, thus contributing to global warming and affecting the environment. However, with the evolution of technology, more environmentally friendly versions are being made available. Today, SIRIM opts for R410A refrigerants to service the organisation's air-conditioning units.

SIRIM has also been extending its procurement practices to include other aspects. Among these are purchasing paper carrying certain environmental markings like the Forest Stewardship Council (FSC), which shows that the organisation's paper is responsibly derived from a sustainable plantation, and engaging contractors that use cleaning detergents with the SIRIM eco-label mark.

This falls in line with the organisation's emphasis on circularity. A relatively new concept, a circular economy takes into account efforts to extend the lifespan of the product by reusing, repairing, refurbishing or recycling it where possible.

Another area of importance is in looking for environmentally friendly options in the organisation's procurement practices. This includes purchasing energy-saving electrical and electronic equipment, such as light bulbs and air-conditioners.



*>> "While being green now is becoming very fashionable, it is important for us to know what we can do to contribute to the bigger picture. We have to relate to a bigger agenda, for example, the Conference of Parties for Climate Change 2022 (COP26), where the participant countries have pledged to do their part to prevent irreversible changes!" <<*

## GREEN IS IN

Being green is, today, one of the fastest-growing trends among businesses globally. However, it is essential that they are able to truly understand how their daily activities can negatively affect the environment.

"Everything in the world is intricately connected. All human activities contribute to global warming. Compared to the pre-industrial age, earth's temperature is increasing. This can be detrimental to the environment and cause extreme weather like droughts and floods," cautioned Mohd Fauzi.

"While being green now is becoming very fashionable, it is important for us to know what we can do to contribute to the bigger picture. We have to relate to a bigger agenda, for example, the Conference of Parties for Climate Change 2022 (COP26), where the participant countries have pledged to do their part to prevent irreversible changes!"

Malaysia has committed to cutting down our greenhouse gas emission by up to 45% by the year 2030, using the 2005 figure as a baseline. Subsequently, every layer of the Malaysian economy is urged to shift our economic activities in support of the global agenda of COP26, mainly by cutting down carbon dioxide emission.

As a technology-oriented organisation, SIRIM is ready and raring to promote green technology to the various industries. "SIRIM is just one organisation, but if the thousands of industries in the country are able to adopt the green innovations, the impact will be great!" said Mohd Fauzi.

SIRIM has numerous offerings in this respect. For one, it not only develops new technologies that are greener but also promotes industry best practices. In terms of energy management alone, SIRIM meticulously identifies the pain points in the various factories or premises to see how their daily operations can be conducted in a more energy-efficient manner.

Typically, this begins with a comprehensive audit to gauge the business's current status and identify the potential areas that could benefit from an energy-saving programme. Subsequently, SIRIM will offer some recommendations. This could involve investing in some energy-saving equipment, which could be as simple as just changing out motors or certain parts of existing machineries.

"Motors often consume a lot of energy. Industries have to realise that these are often running 24 hours a day, and by switching to more energy-efficient motors, they will be able to contribute to helping the environment," explained Mohd Fauzi.

Other initiatives include the optimisation of processes to reduce energy wastage, introduction of new technologies and even integration of renewable energy. SIRIM has assisted numerous industry players in incorporating renewable energy like solar photovoltaic to generate green electricity and solar thermal power in heating processes.

SIRIM also offers services like eco-labelling to encourage businesses to generate products which have the least environmental impact. By verifying that a product is greener, the eco label offers it a distinct competitive advantage in the marketplace.

On a larger scale, SIRIM is also embarking on transforming the nation's industrial estates into eco-industrial parks, where businesses located in the same industrial estate cooperate to efficiently share their resources in an attempt to reduce waste and pollution, and be sustainable.

"We aspire to do this without compromising economic growth and quality, and are confident that this can help the industry players to make a better positive impact in terms of business operations, reduction of carbon dioxide and, ultimately, environmental protection," said Mohd Fauzi.

*>> "We aspire to do this without compromising economic growth and quality, and are confident that this can help the industry players to make a better positive impact in terms of business operations, reduction of carbon dioxide and, ultimately, environmental protection." <<*

## REACHING A WIDER AUDIENCE

In addition to implementing numerous green technology projects that benefit local industry players, SIRIM has also conducted numerous initiatives for various communities. Recently, it introduced a solar-powered desalination technology to the people of Semporna, Sabah, who did not have sufficient fresh water. However, they are surrounded by sea, and with this technology, the seawater can be desalinated and become potable.

Furthermore, as part of its corporate social responsibility endeavours, SIRIM has introduced a solar-powered street lighting system in Langkawi, Kedah, and hopes to do so in Penang as well. It has also embarked on helping schools install solar panels on their rooftops.

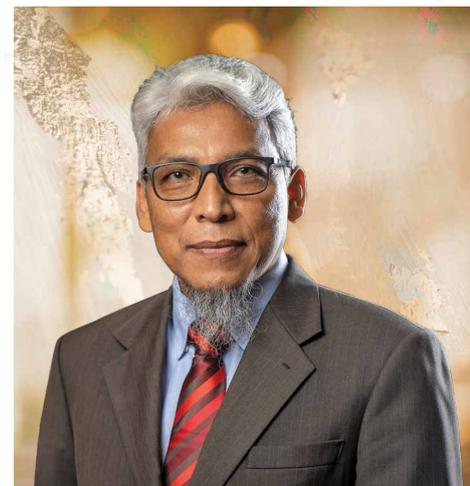
"Renewable energy is getting more affordable with time. Today, solar power is cheaper compared to purchasing electricity from the grid. This makes the transition to greener energy much easier," said Mohd Fauzi enthusiastically.

In addition to technological capabilities and green certifications, SIRIM also offers training and consultancy services to promote green technology. As it continues its trajectory down the path of sustainability, Mohd Fauzi is confident of being able to provide total solutions to help the country's industry players achieve carbon neutrality by the year 2050.

Subsequently, he looks forward to the creation of a more conducive ecosystem to support greener growth. "We already have a good foundation in place. For example, the Malaysian Investment Development Authority (MIDA) allocates green investment allowances and tax exemptions, but the incentives can still be improved on to make the adoption of green technology more affordable for all. Embracing a greener Malaysia and a greener future has to be a collective effort!" he said.

*>> "Embracing a greener Malaysia and a greener future has to be a collective effort!" <<*

>> As more and more organisations race to embrace ESG principles, their ability to acquire relevant certifications will reinforce their credibility and get them further ahead. SIRIM QAS International offers an array of certifications to help local industry players evaluate and meet their sustainable goals effectively. <<



**MOHD HAMIM IMAM MUSTAIN**

*Senior General Manager,  
Management System Certification  
at SIRIM QAS International Sdn Bhd*

## Building a Brighter Future with Certifications

With sustainable innovation being earmarked as a pinnacle of reformation and growth in an extremely competitive economy, Environmental, Social and Governance (ESG) adoption rates have been on the rise around the world.

>> *“With sustainability becoming a norm in the present-day businesses climate, many of the organisations are under tremendous pressure to integrate ESG into their operations and decision-making.”* <<

Financial services company Refinitiv Lipper shared that in 2021, a record US\$649 billion was channelled to ESG-focused funds globally (until November 2021), up from US\$542 recorded in the previous year, while Deloitte Insights anticipates that ESG-mandated assets are set to represent half of all professionally managed assets worldwide by 2024. Additionally, a PwC report showed that 76% of consumers are likely to discontinue their relationships with organisations that treat the environment, employees and communities poorly.

This trend can clearly be witnessed closer to home as well. Capital Group, one of the world’s leading investment management organisations, reported in its ESG Global Study 2022 that there was a surge of ESG users in the Asia Pacific region to 88% this year. Meanwhile, a survey by HSBC revealed that ESG investing has become a priority in the ASEAN region.

“With sustainability becoming a norm in the present-day businesses climate, many of the organisations are under tremendous pressure to integrate ESG into their operations and decision-making,” said Mohd Hamim Imam Mustain, Senior General Manager of Management System Certification at SIRIM QAS International Sdn Bhd (SIRIM QAS International).

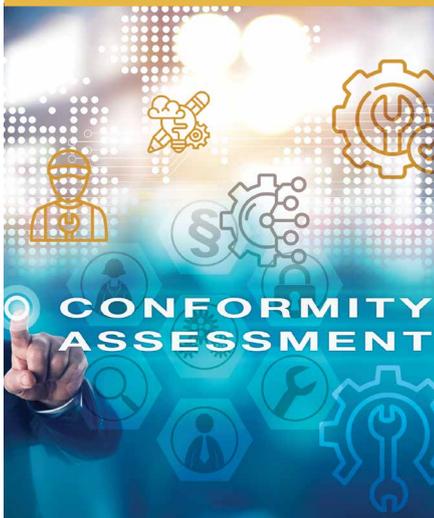
## A Positive-Sum Game

The term 'net zero' refers to a balance that is reached when the amount of greenhouse gases added to the atmosphere is not more than the amount removed. This requires a significant change across the economic landscape that encompasses eliminating fossil fuels and other sources of emissions, and instead embracing renewable energy. In doing so properly, industry players will not only mitigate negative environmental repercussions but also fuel sustainable economic growth in the long run.



## Meeting Requirements

Conformity assessments verify if a particular standard or specification was applied in the design, manufacturing, installation, maintenance or repair of a device or system. It is essential to establish a set of clearly defined rules to ensure the consistency and repeatability of its results.



According to him, the Covid-19 pandemic spurred a heightened awareness of ESG issues globally, giving them an additional boost in the past two years. Governments everywhere, Malaysia included, have made ESG a top priority in their respective pursuits for net-zero economic growth. In fact, the Malaysian government identified "Embracing the Circular Economy" as a game-changer for the country's development under the 12th Malaysia Plan, making it essential for the public and private sectors to adopt ESG and Sustainable Development Goals.

### ESTABLISHING A BENCHMARK

ESG primarily advocates the sustainability outcomes and performance of an organisation. However, it can be arduous for the organisation to meet its ESG goals. This is where conformity assessments can play an important role.

"For an organisation to meet its goals in any of the ESG dimensions is usually easier said than done. It would need to have the capabilities to effectively drive ESG performance and accountability, implement criteria that complement local and international regulations, and satisfy the expectations of its stakeholders, including the relevant authorities, investors and consumers.

"A conformity assessment is able to offer an objective third-party assurance that the organisation adheres to a set of standards and has the mechanisms in place to adopt ESG principles," shared Mohd Hamim.

SIRIM QAS International is a leading conformity assessment body in Malaysia that is committed to supporting the ESG goals of organisations towards advancing the nation's sustainability agenda as outlined in the 12th Malaysia Plan. It offers a wide range of internationally recognised testing, inspection and certification services.

*>> "In addition to our accreditations, SIRIM QAS International is a member of the International Certification Network (IQNet), which allows the certifications it issues to be accepted in over 50 countries worldwide. With a team of highly qualified auditors, we are ever ready to serve local and international clients across diverse industries to uphold environmental protection, social good and business efficiency for the growth of the nation." <<*

Among others, SIRIM QAS International is accredited by the Department of Standards Malaysia (Standards Malaysia) and the United Kingdom Accreditation Service (UKAS), guaranteeing customers of credible testing, inspection and certification services to help elevate organisations' ESG strategies while enhancing their competitiveness and penetration into global markets.

"In addition to our accreditations, SIRIM QAS International is a member of the International Certification Network (IQNet), which allows the certifications it issues to be accepted in over 50 countries worldwide. With a team of highly qualified auditors, we are ever ready to serve local and international clients across diverse industries to uphold environmental protection, social good and business efficiency for the growth of the nation," added Mohd Hamim.

## UPHOLDING EXCELLENCE

SIRIM QAS International provides a vast range of management system certifications according to numerous categories of standards such as ISO standards, National standards and Organisational standards.

“The management systems can be considered tools that help businesses to manage their policies and procedures as well as the implementation of processes and monitoring in line with their business objectives. These are supported by relevant standards, which provide a systematic framework for the establishment, maintenance and continual improvement of the management systems,” explained Mohd Hamim, who proceeded to share some of SIRIM QAS International’s certification offerings that address the ESG principles.

Two of the certifications that fall under the Environmental banner include the quantification of greenhouse gases (GHG) emitted from products (Product Carbon Footprint) against the ISO 14067 and the quantification of GHG emitted directly and indirectly from or related to the organisation itself (Organisational Carbon Footprint) against the ISO 14064, which form vital steps in moving organisations and the nation closer towards net zero carbon emissions.

Additionally, there are an Energy Management System against the ISO 50001, Environmental Management System against the ISO 14001 and the Aftermarket Motor Vehicle certification against the MS 2696 and MS 2697. These promote affordable and clean energy, clean water and sanitation and environment safeguarding.

In terms of Governance, the ISO 37001 Anti-bribery Management System is aimed at helping organisations to detect, prevent and respond to bribery risks. Meanwhile, the ISO 9001 Quality Management System certification ensures that the organisations uphold their product and/or service quality to meet customers’ expectations.

For the Social dimension, there are several schemes on offer, which include Occupational Health and Safety against the ISO 45001, Road Traffic Safety against the ISO 39001, Food Safety against the ISO 22000 and Medical Devices against the ISO 13485. These management system certifications serve to amplify a commitment towards gender equality, reduction of inequality and the achievement of good health and wellbeing.

In advocating decent working environments in Malaysia, SIRIM QAS International also launched a Social Accountability Scheme recently. Named SIRIM 50, it is targeted at assisting organisations to incorporate acceptable and law-abiding practices into their business operations.

*>> “The management systems can be considered tools that help businesses to manage their policies and procedures as well as the implementation of processes and monitoring in line with their business objectives. These are supported by relevant standards, which provide a systematic framework for the establishment, maintenance and continual improvement of the management systems.” <<*

“With SIRIM 50, we want to encourage the organisations to ramp up their commitment to social compliance as a way to counter the forced labour allegations that have been plaguing the nation in recent years,” shared Mohd Hamim.

## REINFORCING COMMITMENTS

As certifications are provided by third-party organisations, they are able to offer an unbiased and comprehensive analysis on the organisation’s current level of ESG-compliance as well as the way forward.

### Benefits of Obtaining ESG-Related Certifications

- ~~ Demonstrate the organisation’s commitment to making a positive impact in the world
- ~~ Ensure that the organisations are not merely greenwashing
- ~~ Give organisations better credibility, making them more attractive to investors and customers alike
- ~~ Boost the organisations’ brand and competitiveness
- ~~ Allow the leadership teams in organisations to better plan and execute their strategies to achieve their ESG goals
- ~~ Promote a culture of continuous improvement
- ~~ Provide easier access to a wider marketplace globally



"The certifications provide an avenue for the proactive analysis and reporting of an organisation's adherence to ESG criteria in its day-to-day operations. They allow businesses to reinforce their commitment to the cause while showcasing their endeavours in making a difference in the world," shared Mohd Hamim.

What's more, the standards applied will help the organisations to manage their processes and policies, enabling them to identify potential risks and implement the proper mitigation, monitoring and remedial actions to seize the opportunities in front of them. This gives the organisations' top management a solid foundation to plan a pathway towards achieving its ESG goals.

>> *"The certifications provide an avenue for the proactive analysis and reporting of an organisation's adherence to ESG criteria in its day-to-day operations. They allow businesses to reinforce their commitment to the cause while showcasing their endeavours in making a difference in the world."* <<



Additionally, as the certification process lays out the requirements and goals in a transparent manner, certifications can promote a culture of continuous improvement throughout the organisation, thus facilitating decision-making and business performance.

"Certifications can also increase trust among the stakeholders while deterring allegations of 'greenwashing', where the extent of the sustainability of an organisation, product or service is oversold or falsely marketed. An organisation that has undergone stringent auditing and obtained a credible certification to prove that it is, indeed, ESG-compliant, will be better positioned to gain the confidence of its stakeholders," explained Mohd Hamim.

As a bonus, the organisation's reputation and competitive edge will be buoyed. This will open more doors for it to increase its resilience and business opportunities, eventually allowing it to penetrate crucial markets where ESG is a core consideration, such as the US and the EU, more easily.

"The boom in ESG is not slowing down anytime soon. In fact, ESG will be a key enabler of a nation's growth. Malaysia's industry players need to get on board the ESG train as soon as possible to keep up. In this respect, we at SIRIM QAS International welcome organisations in both the public and private sectors to take advantage of our services to fuel their sustainable journey," concluded Mohd Hamim.

>> *"The boom in ESG is not slowing down anytime soon. In fact, ESG will be a key enabler of a nation's growth. Malaysia's industry players need to get on board the ESG train as soon as possible to keep up. In this respect, we at SIRIM QAS International welcome organisations in both the public and private sectors to take advantage of our services to fuel their sustainable journey."* <<

>> While Malaysia has been witnessing an increase in the adoption of ESG principles in recent years, awareness of its importance and benefits can still be improved, particularly among smaller sized companies. SIRIM is geared up to change this. <<



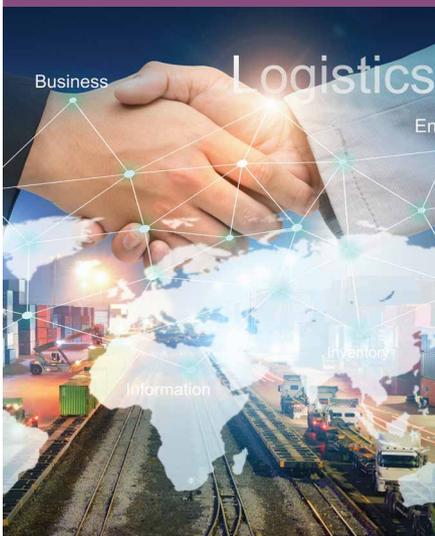
**ANIJAH PANGAT**

*Principal Consultant, Management System Standards Section at SIRIM Training Services Sdn Bhd*

## Helping Industry Players to Make a Positive Impact

### Pathway to Prosperity

The Shared Prosperity Vision 2030 is a government blueprint that details 10-year goals to elevate Malaysia's economy to a knowledge-based economy. It highlights the nation's commitment to attain sustainable growth alongside fair and equitable distribution across income groups, ethnicities and supply chains towards enhancing the nation's prosperity.



>> *"This is still a relatively new concept for many small and medium enterprises (SMEs), and while they might be familiar with the term, they might not have a proper understanding of what they can do in terms of environmental and social accountability as well as the minimal requirements to ensure legal compliance in terms of governance."* <<

Of late, Malaysia has been ramping up the country's commitment to Environmental, Social and Governance (ESG) principles. This is evident especially in the current 12th Malaysia Plan, which underscores the government's efforts to champion sustainable development via the implementation of a sustainable national development agenda.

In fact, during the tabling of the 12th Malaysia Plan in 2021, Prime Minister Dato' Sri Ismail Sabri bin Yaakob also touched on the country's Shared Prosperity Vision 2030 and other initiatives that echo the essence of ESG towards setting the strategic direction for achieving a prosperous, inclusive and sustainable Malaysia.

While the concept of ESG is not new for multinational companies (MNCs), government-linked companies (GLCs) and other public-listed companies, smaller scale companies are still lacking in awareness and, thus, lagging behind.

"This is still a relatively new concept for many small and medium enterprises (SMEs), and while they might be familiar with the term, they might not have a proper understanding of what they can do in terms of environmental and social accountability as well as the minimal requirements to ensure

legal compliance in terms of governance," explained Anijah Pangat, Principal Consultant of the Management System Standards Section at SIRIM Training Services Sdn Bhd (SSTS).

According to her, ESG is essential in today's global economy as it adds non-financial aspects to an organisation's competitive edge, offering a new dimension for the consideration of potential investors in identifying material risks and growth opportunities.

"ESG basically facilitates long-term growth, attracts talent, reduces costs and establishes a sense of trust among consumers. It has been demonstrated that organisations adhering to ESG criteria yield higher financial growth and optimisation, better productivity, lower volatility and reduced regulatory and legal interventions," she added.

### INCREASING AWARENESS

With SMEs forming a prominent part of Malaysia's economic landscape, it is essential that they are able to harness the advantages of ESG and flourish.

"SMEs are the backbone of Malaysia, so we have to make them aware that they have a responsibility to uphold environmental, social and governance principles in their daily actions. ESG is not just about garnering certifications! ESG is to be cultured in any industry in Malaysia" emphasised Anijah.

To date, participation in ESG-related programmes from SMEs has been minimal. As adoption of ESG principles is currently on a voluntary basis, many of the smaller players choose not to do so. Additionally, they typically may not have the capacity or finances to pursue ESG programmes.

Understanding the benefits that organisations, including SMEs, stand to gain from adopting ESG principles, SSTS has numerous programmes up its sleeves that address this. One of them is the recently launched SIRIM STANDARDS SIRIM 50:2021 Social Accountability - Requirements, a social accountability scheme that focuses on labour requirements, employee rights, welfare and safe work environment.

*>> "By addressing social accountability, SIRIM 50 offers organisations an opportunity to demonstrate their social performance to stakeholders as well as improving their social practices." <<*

According to Anijah, they have received a lot of enquiries for training and certification programmes in this area.

"By addressing social accountability, SIRIM 50 offers organisations an opportunity to demonstrate their social performance to stakeholders as well as improving their social practices.

"There are SMEs that may find it difficult to meet minimal labour requirements, such as the recently gazetted RM1,500 minimum wage. With SIRIM 50, we hope to be able to give them a helping hand in meeting the labour law requirements, employee rights, welfare, and safe work environment, so they can forge their way forward in integrating sustainable business practices and go on to make a positive impact in society and penetrate local and international markets in the future."

*>> "ESG basically facilitates long-term growth, attracts talent, reduces costs and establishes a sense of trust among consumers. It has been demonstrated that organisations adhering to ESG criteria yield higher financial growth and optimisation, better productivity, lower volatility and reduced regulatory and legal interventions." <<*

### A Boost for SMEs

Adopting an ESG programme can help SMEs to make an impact in their sustainability journey. Some of the benefits include:



*Gaining a competitive advantage*

~ by boosting brand recognition and promoting brand loyalty



*Top-line growth*

~ by helping companies to tap new markets



*Reduction of costs*

~ leading to decreased wastage, improved operational efficiency and better risk management



*Attracting more investors*

~ due to their ability to perform better



*Attracting and retaining top talents*

~ who are looking to make a positive difference in the world

>> *“Obtaining preliminary knowledge of ESG will enable all stakeholders across the board to respond efficiently in upholding their ESG responsibilities and conduct more effective due diligence to make better decisions.” <<*

In line with the nation’s focus on complying with ESG criteria, SSTS has included ESG as a key emphasis for its yearly training programmes.

In order to heighten awareness of ESG, SSTS offers a one-day course that can be conducted physically as well as virtually. This course, which mainly addresses capacity building and provides consultancy assistance, aims to help the industry players to gain a better understanding of the ESG requirements and see what non-financial reporting is about. External consultants specialising in ESG matters, such as economists and financiers are also engaged to complement SSTS’s expertise and offer participants a well-rounded outlook.

### Upholding Social Accountability

The SIRIM 50 scheme assesses an organisation’s compliance with health and safety regulations, Malaysian labour laws and ethical practices. It defines requirements that are consistent with other international social standards like ISO 26000 and SA 8000.

Under SIRIM 50, an organisation will be evaluated in numerous core areas. These are Child Labour, Forced or Compulsory Labour, Health and Safety, Freedom of Association and Right to Collective Bargaining, Discrimination, Disciplinary Practices, Working Hours and Remuneration.



>> *“The Green 5S offers an avenue for managing one’s workplace and environment by Structuring, Systemising, Sanitising, Standardising and Self-discipline. This system has been practised by the PLUS rest stops with yearly audits. You can see the difference. Previously, the rest stops were dirty and messy. Now, with the 5S recognition, they are neater, cleaner and more structured. Even their kitchens are properly labelled.” <<*

To this extent, Anijah hopes to get the participation of organisations of all sizes and industries in the country. “Obtaining preliminary knowledge of ESG will enable all stakeholders across the board to respond efficiently in upholding their ESG responsibilities and conduct more effective due diligence to make better decisions.”

Once the awareness and understanding has been established, then the organisations will be ready to move on to the next phase, such as learning how to compile ESG reports.

### PAVING THE WAY FORWARD

In its endeavours to nurture ESG pioneers, SSTS has plans to offer a training and consultancy package that are aimed at gearing organisations towards ESG adoption. Anijah shares how it could be a recognition scheme, similar to the Green 5S programme that has been implemented at the rest stops along the PLUS highways.

## Standards of Excellence

SIRIM Training Services Sdn Bhd's (SSTS) primary roles lie in the development of industry standards as well as training and consultancy with the ultimate aim of assisting organisations to implement a business culture of excellence with the incorporation of quality, technology and best practices in their daily work demands.

In terms of training and consultancy, SSTS aims to upgrade the technological skills and capabilities of local industries via various programmes focused on technical and vocational education and training (TVET), innovation and, now, ESG.

Backed by an experienced team of specific industry trainers and consultants, SSTS provides courses, seminars, workshops, conferences, in-house training, packaged training programmes and consultancy services.

*>> "For now, we can see that ESG principles are being practised according to individual interpretations, with organisations declaring themselves to be ESG-compliant. It would be easier for them if we have a proper system to guide them along. This is where our consultants, trainers and auditors can help." <<*

"The Green 5S offers an avenue for managing one's workplace and environment by Structurising, Systemising, Sanitising, Standardising and Self-discipline. This system has been practised by the PLUS rest stops with yearly audits. You can see the difference. Previously, the rest stops were dirty and messy. Now, with the 5S recognition, they are neater, cleaner and more structured. Even their kitchens are properly labelled," said Anijah.

Plans are also in place to fortify SSTS's capacities in this area. These include grooming its internal business and consultancy teams to facilitate the incorporation of ESG initiatives into its existing management systems.

"To elevate our standard-based management system to include an ESG focus, we need to plan and prepare well. This will be a significant project as we're looking at two different aspects - the system and training," she added.

In terms of the financial and non-financial ESG reporting, for example, SSTS is looking at sending its people for further training, especially to understand Bursa Malaysia and international requirements. Besides that, there is a need to establish a solid framework that includes standards and guidelines locally.

"For now, we can see that ESG principles are being practised according to individual interpretations, with organisations declaring themselves to be ESG-compliant. It would be easier for them if we have a proper system to guide them along. This is where our consultants, trainers and auditors can help," said Anijah.

As part of a premier provider of comprehensive industrial research and technology solutions in Malaysia, SSTS has all the resources needed in one convenient package. It is therefore hoped that all industry players, regardless of size and type, will take advantage of its expertise to embrace ESG and increase their competitive edge globally.



>> With ESG fast becoming a central concept in the business world, there is a need to be able to measure the various elements defining the Environmental, Social and Governance principles to ascertain that specific requirements and benchmarks are being met. Calibration is instrumental in order to ensure the accuracy of these measures. <<



**DR. FARIDAH HUSSAIN**

Chief Executive Officer of SIRIM Standards Technology Sdn Bhd

## A Measure of Sustainability

In a world where organisations are racing down the path of sustainability and ESG has become a norm, calibration plays a critical role in ensuring the smooth progress of their journey. For one, calibration can facilitate the optimisation of processes to minimise downtime and wastage, control emissions and maximise productivity and reliability.

This is where a calibration laboratory is needed. SIRIM Standards Technology Sdn Bhd (SIRIM SST) is a leading name in the provision of calibration services to diverse industries in Malaysia and the region, issuing over 40,000 calibration certificates annually.

"Calibration is inherent in our daily lives whenever any type of measurement, such as temperature, distance, mass, weight or volume, is being applied. Every time we want to find a value, we need to use a measuring instrument. Subsequently, it is essential that the measuring instrument gives an accurate reading. To ensure this, the instrument is compared against a standard or reference," said Dr. Faridah Hussain, Chief Executive Officer of SIRIM SST.

>> *"Calibration is inherent in our daily lives whenever any type of measurement, such as temperature, distance, mass, weight or volume, is being applied. Every time we want to find a value, we need to use a measuring instrument. Subsequently, it is essential that the measuring instrument gives an accurate reading. To ensure this, the instrument is compared against a standard or reference."* <<

### What is Calibration?

Calibration is a documented comparison of the measurement values of the measurement device against a traceable reference standard or device, which is also known as a calibrator. During the calibration process, the measurement device is configured to provide a result that is within an acceptable range.



As the reference standard, SIRIM SST's instruments are already calibrated against the official standard at the National Metrology Institute of Malaysia. Customers' equipment will be calibrated in various laboratory-simulated environments before a calibration report or certificate is issued. Any calibration errors, namely the difference between the values indicated by an instrument and the actual value, will be detailed in the report.

"As our equipment is calibrated against national standards, our customers' equipment will be assured of being able to give accurate results," she added.

The importance and benefits of calibration are plenty, especially in an ESG-focused world. By ascertaining the accuracy of an instrument's measurements, calibration can help to improve an organisation's sustainability journey in many ways.

For example, some cheaper raw materials may create toxic by-products. By being able to accurately measure the emission of toxic waste, organisations will then be able to make an educated decision on choosing a more sustainable alternative.

"With adherence to ESG principles becoming a requirement for businesses to thrive, we at SIRIM SST are committed to helping local industry players to achieve their sustainable goals via calibration and by raising awareness of the importance of ensuring the accuracy of equipment used," elaborated Dr. Faridah.



>> *"With adherence to ESG principles becoming a requirement for businesses to thrive, we at SIRIM SST are committed to helping local industry players to achieve their sustainable goals via calibration and by raising awareness of the importance of ensuring the accuracy of equipment used."* <<

## Upholding ESG Principles with Calibration

Calibration can help to determine the accuracy of the various measurements of diverse aspects, including:



Environmental ~ carbon dioxide & other greenhouse gas emissions, pollutants



Social ~ workplace health & safety, community wellbeing



Governance ~ risk management, operational performance, profits

>> *"As our equipment is calibrated against national standards, our customers' equipment will be assured of being able to give accurate results."* <<

## INCREASING AWARENESS

Malaysia is moving rapidly down the path of sustainability. However, the awareness level of the importance of calibration in facilitating the adoption of ESG principles is still rather low among local small and medium enterprises (SMEs), especially when compared with the awareness levels among bigger multinational organisations.

"The SMEs are usually hindered by budget constraints, as well as a lack of technical understanding, proper facilities, knowledge and technical support. ESG is a relatively new concept for them. However, they need to be able to progress alongside other industry players or risk getting left behind," shared Dr. Faridah.

She cites the potential implementation of a carbon credit scheme as an example. "According to this scheme, industry players that manufacture products using energy stemming from fossil fuels and not renewable fuels may have to pay higher taxes. Furthermore, proper compliance with ESG will be a criteria for them to apply for loans from international banks."

Moreover, there may also be serious implications for consumers should industry players use equipment and instruments that are not properly calibrated in their production process. Take, for example, the automotive industry. In manufacturing a car, many measuring instruments are involved. If even just one tool is not calibrated properly, it will affect the performance of the car. The distance, fuel consumption and temperature measured may not be accurate, which could be a safety hazard.

“One of the more vital aspects of calibration is in upholding safety. We also have customers from the aerospace industry, working on vehicles like aircrafts and helicopters; the medical industry and semiconductor industry, for instance. It is very crucial that the measuring instruments are accurate as lives can be at stake!” said Dr. Faridah.

To facilitate adherence to ESG requirements, the industry players will have to be able to get accurate measurements to derive the results. Consequently, the equipment and instruments they use throughout their production processes have to be calibrated. As such, a high level of awareness of the necessity of calibration is important, failing which the industry players may not be able to record accurate results.

SIRIM SST is, therefore, increasing its reach to engage with the industry players. Recently, SIRIM, together with the Ministry of International Trade and Industry (MITI), organised a live webinar aimed at helping local industry players to transform their organisations towards becoming more sustainable. During the event, the organisers shared information on relevant policies, guidelines and legislations as well as a new industry master plan to nurture world-class industrial parks, among others.

*>> “One of the more vital aspects of calibration is in upholding safety. We also have customers from the aerospace industry, working on vehicles like aircrafts and helicopters; the medical industry and semiconductor industry, for instance. It is very crucial that the measuring instruments are accurate as lives can be at stake!” <<*



#### MAINTAINING ACCURACY

*>> “With SIRIM being a trusted name, industry players are not only confident that the equipment they send to us is being calibrated according to international standards, but also that our equipment is properly calibrated, our team performing the calibration have the technological expertise and we are using high-accuracy management standards.” <<*

Through the years, SIRIM SST has gained a solid footing as a prominent provider of calibration services, both locally and regionally. Dr. Faridah attributes this to its competitive advantages.

“With SIRIM being a trusted name, industry players are not only confident that the equipment they send to us is being calibrated according to international standards, but also that our equipment is properly calibrated, our team performing the calibration have the technological expertise and we are using high-accuracy management standards.

“Besides our Shah Alam office here in Selangor, we also have four branches in strategic locations in Permatang Pauh, Penang; Senai, Johor; Kuantan, Pahang; and Kuching, Sarawak. We are also in the midst of setting up another branch in Kota Kinabalu, Sabah. With a strong presence across the nation, we are able to provide a comprehensive and diversified range of calibration and measurement services,” she continued.

With laboratories in major townships near industrial areas, SIRIM SST is able to serve its customers better with a shorter turnaround time as they will not have to contend with extensive logistics arrangements. Presently, the turnaround time ranges from approximately five to 14 days, depending on the location, quantity and type of equipment being calibrated.

SIRIM SST also has customers hailing from Singapore, Thailand and Brunei, with a collaborative project in the Philippines in the pipeline, whereby the SIRIM SST team can either head over to the country to perform calibration on site or the equipment can be sent over to Malaysia.

On top of that, SIRIM SST's laboratories are accredited with ISO/IEC 17025, which means that they are internationally recognised for calibration. Furthermore, they offer an array of value-added services, which include repairing the equipment, conducting on-site calibrations, arrangement of transportation for collecting and returning the equipment, and providing training related to their calibration services.

### Did You Know?

The ISO/IEC 17025 accreditation allows laboratories to show that they operate competently and are able to produce valid results.

*>> "Our offerings are very comprehensive, thus allowing us to calibrate most of the industry equipment. Additionally, as our equipment is of high-accuracy, we are able to provide a comprehensive report that reliably indicates the uncertainty of the measurements." <<*

"We have a diversified customer portfolio from various industrial sectors, including oil and gas, manufacturing, aviation, semiconductor, utilities, defence, automotive, telecommunications, healthcare, agriculture and many more. Our offerings are very comprehensive, thus allowing us to calibrate most of the industry equipment. Additionally, as our equipment is of high-accuracy, we are able to provide a comprehensive report that reliably indicates the uncertainty of the measurements," revealed Dr. Faridah.

### EXPANDING INTO THE FUTURE

Anticipating that demand for calibration services will continue to be on an incline in coming years, SIRIM SST is gearing up to expand its capabilities and reach within the next five years. Firstly, to reduce logistical issues and turnaround time, it is looking at establishing more laboratories in strategic locations.

"We have started setting up a laboratory in Kemaman, Terengganu, to cater to the oil and gas industry there. With this set-up, we hope that the turnaround time can be shortened to two or three days. Meanwhile, the laboratory we are setting up in Kota Kinabalu, Sabah, is aimed at meeting the demands of the industry players located there," shared Dr. Faridah.

Moreover, SIRIM SST is also enhancing the capabilities of existing branches. "Currently, we are looking at increasing the scope of calibration in Johor and Penang to be on par with our laboratory in Shah Alam. This way, no matter what their calibration needs are, customers in Johor can be fully supported by the laboratory in Johor. Similarly, those in the northern region can send their equipment to the laboratory in Penang," she added.

### Myriad Capabilities

SIRIM SST offers a comprehensive scope of calibration services in diverse areas, including:

- ~~ Radio frequency
- ~~ Electrical
- ~~ Welding machines
- ~~ Dimensional
- ~~ Torque
- ~~ Force
- ~~ Pressure
- ~~ Mass and volumetric
- ~~ 3D measurement
- ~~ Temperature
- ~~ Customised technical training

In addition to that, SIRIM SST has also taken the step to digitalise its processes. While currently the calibration certificates for customers are physical, it will be moving towards the provision of digital certificates. This will facilitate the reduction of errors and turnaround time.

"We look forward to being able to support the industries across Malaysia, including Sabah and Sarawak, as well as in our neighbouring nations competently and effectively. Ultimately, our goal is to ensure that SIRIM SST is the preferred choice when it comes to calibration," said Dr. Faridah.

If you are interested to find out more about the calibration services offered at SIRIM SST, you can reach them at <https://www.sst.com.my>, where you will be directed to the branch nearest to you so you are assured of minimum logistics and optimum turnaround time.



## ADVERTISEMENT RATES (RM)

Full Colour	Insertions			
	1	2	3	4
ROP	3,500	3,000	2,500	2,000
Back Cover (A4)	5,000	4,500	4,000	3,500
Inside Front Cover (A4)	4,500	4,000	3,500	3,000
Inside Back Cover (A4)	4,000	3,500	3,000	2,500
Specified Positions (A4)	4,000	3,500	3,000	2,500
Half Page Specified Positions	3,000	2,500	2,000	1,500
Half Page Specified ROP	2,500	2,000	1,500	1,000

### ADVERTISEMENT BOOKING FORM

#### PARTICULARS

Company: .....

Address: .....

Tel: ..... Fax: .....

E-mail: ..... Contact Person: .....

Job Title: .....

#### BOOKING DETAILS

Frequency  1x  2x  3x  4x

Position  ROP  Back Cover  Inside Front Cover  Inside Back Cover  Specified Positions

Payment must be made by crossed cheque or money order, and payable to SIRIM Berhad. Further enquiries, please call Nurazlina Ismail (Corporate Affairs: 03-5544 6772).

# SIRIM Standards Store



Find Us. Find Standards.

SIRIM STANDARDS  
MALAYSIAN ACTS AND REGULATIONS  
ISO JIS ASTM BS  
CARBON FOOTPRINT  
SIRIM ECO AIAG IEC



For more information:

Tel: 603 5544 6111/6112/6142

Email: [standards@sirim.my](mailto:standards@sirim.my)

Link: <https://standards.sirimsts.my>

# SIRIM Technical Library

**We** provide the best Library Membership Scheme to assist industry, government agencies, association and academician get access to standards, technical reports, journals and other scientific and technical publications. Enjoy the privileges of SIRIM Technical Library membership scheme.

## Privileges that We Offer:

### Business Consulting

01  
Our consultant will assist you to resolve your business problems pertaining to Standards, Quality and Technology

### Service & Advice

02  
We provide services that help your business in getting technical information in the form of standards and all technical publications.

### Marketing & Research

03  
With our technical collections, we can help to elevate your business competitiveness.

### ◆ Unlimited Reference

Vast collection of Malaysian Standards, International, Foreign and Association Standards for your references

### ◆ Library Collection

You can borrow up to 15 materials at a time with a maximum of 14 days borrowing period

### ◆ Standards Update Services

We provide you with reports on standards updates, amendments and withdrawals of standards

**Sign up now as our members and enjoy the privileges!**



**For more information:**

Tel : 03 5544 6102/6108/6100

Fax : 03 5544 6119

Email: [library@sirim.my](mailto:library@sirim.my)

Link: <https://elibrary.sirim.my>