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A PLATFORM FOR PROGRESSING
beyond the pandemic

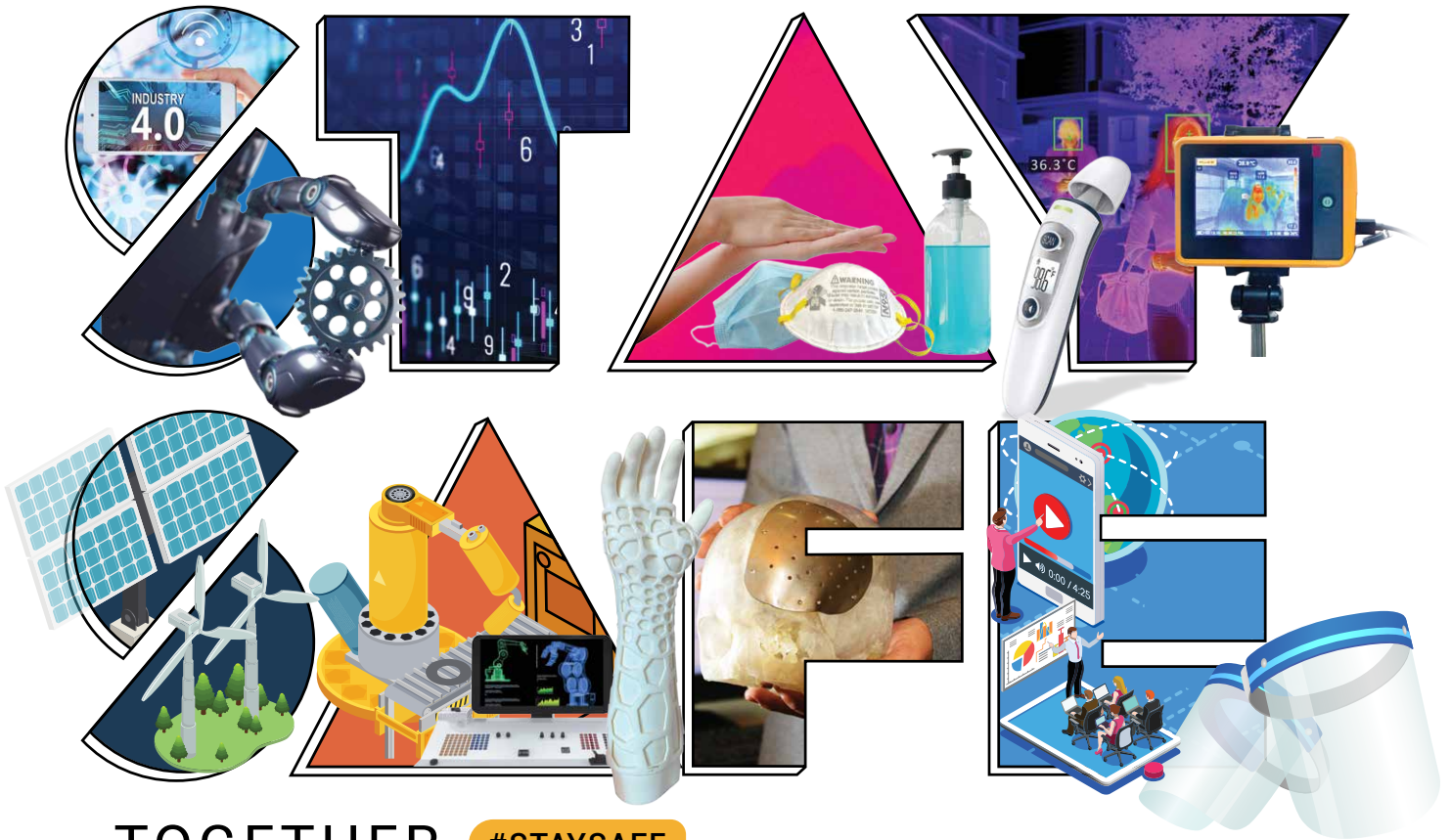
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TESTING, AUDITS AND CERTIFICATIONS
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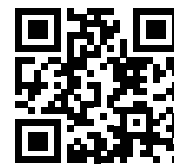
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PROGRESSING BEYOND COVID-19



>> FOREWORD

>> Nearly a year has gone by since the COVID-19 virus first made its appearance in Malaysia. Throughout this time, we have had our share of ups and downs, with the number of deaths climbing and new patients fluctuating. Unsurprisingly, the nation's economy and health has taken a huge hit.

SIRIM has been supporting the Malaysian government's efforts to help industries, frontliners, patients and the general public during this trying time. Now, with the country in the recovery stage, our role is more important than ever. In this issue, we delve into some of SIRIM's expertise and capabilities, and what we can do to bring Malaysia through the next stages so that we can triumph and thrive beyond the pandemic.

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A PLATFORM FOR PROGRESSING BEYOND THE PANDEMIC

The COVID-19 pandemic has caused major hiccups in Malaysia's economic progress, but SIRIM Industrial Research has some timely developments that will help industry players to move beyond the adverse impacts of the pandemic and intensify their efforts in embracing Industry 4.0.

Positioned at the frontline for technological innovations, SIRIM Industrial Research's main role includes providing total solutions – from ideation to market – to various industries. This is more important than ever in current times. With many small and medium enterprises (SMEs) flailing due to the aftermath of the initial Movement Control Order (MCO) restrictions that spanned several months, they need all the help they can get to get back on track.

TOTAL SOLUTIONS FOR INDUSTRIES

SIRIM Industrial Research focuses on applied research to offer technology-oriented total solutions that are able to help industry players realise their ideas via the creation of new products or enhancement of existing products to be more unique and competitive. Additionally, it also provides related technical training and services, as well as playing an important part in improving productivity.

There are three Technology Centres that are supported by six Industrial Centres of Innovation under SIRIM Industrial Research. These are:

TECHNOLOGY CENTRES





- >> Industrial Biotechnology Research Centre
- >> Environmental Technology Research Centre
- >> Machinery Technology Centre

INDUSTRIAL CENTRES OF INNOVATION in:

- >> Smart Manufacturing
- >> Sensors
- >> Energy Management
- >> Biomedical
- >> Nanotechnology
- >> Bio-Natural Gas

DID YOU KNOW?

Smart Manufacturing is a familiar term heard in Malaysia in present times. Many countries in the world are rapidly adopting Industry 4.0 technologies, but they use different terms to describe their efforts. Here are a few used around the region:

- >>  Industrial Value Chain Initiative
- >>  Smart Nation
- >>  Manufacturing Innovation
- >>  Made in China 2025

Enter the Smart Manufacturing Experience Centre that was conceived to empower SMEs. This initiative provides a platform for industry players to get up close and personal with and understand relevant Industry 4.0 technologies, and to enable local talents in developing suitable solutions to address pain points in their operations.

The centre aims to:

- >> Provide a place for industry to learn about and experience the application of Industry 4.0 technology
- >> Provide a "test bed" for organisations to test using their own data, allowing them to conduct their own analysis using the tools at the centre
- >> Train industry and institutes of higher learning on the application of Industry 4.0 technology
- >> Help industry players to learn from the success stories of SIRIM and its collaborators

"When you go to themed parks, like Disneyland, you get to experience it. Similarly, with the Smart Manufacturing Experience Centre, we want industry players and SMEs to come and have a feel of what Smart Manufacturing entails," explained Ir. Dr. Mohamad Jamil Sulaiman, the Vice President of SIRIM Industrial Research.



Ir. Dr. Mohamad Jamil Sulaiman
Vice President of
SIRIM Industrial Research

When you go to themed parks, like Disneyland, you get to experience it. Similarly, with the Smart Manufacturing Experience Centre, we want industry players and SMEs to come and have a feel of what Smart Manufacturing entails."

According to him, the focus on Smart Manufacturing is necessary to ensure the continued progression of Malaysia towards becoming a developed country. "Manufacturing has evolved over time – from mechanisation to automation, and now, a merger of physical and cyber spaces, namely Industry 4.0. Our economic growth is dependent on manufacturing; it is one of the biggest contributors to our gross domestic product (GDP)."

Scheduled to be launched by early 2021, the centre will be located at Bukit Jalil, which hosts many Industry 4.0-related activities, such as 3D printing, simulation activities and sensors. It also involves collaborations with international organisations like Hitachi Asia, Bosch Rexroth and Huawei to identify optimal solutions to thrust local SMEs into the fourth industrial revolution.

DEMAND FOR DIGITALISATION

As Malaysia concentrates on attaining Developed Nation status, the adoption of digitalisation is inevitable. This was intensified with the onslaught of COVID-19, which has led to many organisations, big and small, discovering the potential of digitalisation first-hand.

With industries turning to online platforms to minimise disruptions during the pandemic, the importance of digitalisation was magnified. Furthermore, while many organisations had to resort to working from home due to movement restrictions, they also observed an increase in productivity and a decrease in operational costs when this occurred. Subsequently, automation becomes another important component during this time to allow people to manage and monitor their operations systems efficiently.

"With no commuting needed, employees don't have to worry about traffic jams. The organisation also saves on their electricity bills! This is a 'blessing' for us as we embrace a new normal," added Dr. Mohamad Jamil.

Manufacturing has evolved over time – from mechanisation to automation, and now, a merger of physical and cyber spaces, namely Industry 4.0. Our economic growth is dependent on manufacturing; it is one of the biggest contributors to our gross domestic product (GDP)."



Upon being engaged by the Ministry of International Trade and Industry (MITI) to conduct readiness audits and investigate the level of automation that each industry is at, SIRIM discovered that there was a significant gap between the different sectors.

"The readiness level for Industry 4.0 in Malaysia is quite minimal actually," lamented Dr. Mohamad Jamil. "The more financially sound organisations are able to engage the relevant consultants to help them, but many organisations have financial issues that prevent them from being able to access the necessary technologies easily."

He observed that while the aerospace and automotive industries had higher levels of automation adoption, this was not the case with the food and beverage sector. "As such, we will try to encourage those still using manual processes to upgrade to automation. This will not only speed up the process but also facilitate quality control and lessen dependency on foreign workers."

He went on to cite an example of a banana chips setup that initially had to undergo various steps, from peeling and slicing the bananas at a consistent thickness to frying and packaging them. "We designed a machine that combines all those steps. So from several steps involving a number of workers, all they need now is one machine. As a bonus, the quality of the product is also maintained," he explained.

An important takeaway is that organisations should not be overwhelmed. Contrary to popular opinion, the process of digitalisation and automation need not be an arduous or expensive process. A simple first step could be in reducing or eliminating the paper trail altogether in favour of a digital system.

"The digital adoption process can start small and be enhanced from there. More importantly, it can actually be very affordable," reiterated Dr. Mohamad Jamil.

In this respect, one of SIRIM's tactics is to focus on providing value for money. This is done by favouring a brownfield approach versus a greenfield approach. With the latter, all equipment acquired is new and, thus, can be very expensive. Brownfield, however, makes use of the equipment available and retrofitting them to ensure connectivity between the machine and the system.

"This is a good way for organisations to understand the fundamentals of technology. Once they can subscribe to and accept digitalisation, it will be easier for them to move on to Smart Manufacturing and Industry 4.0," explained Dr. Mohamad Jamil.



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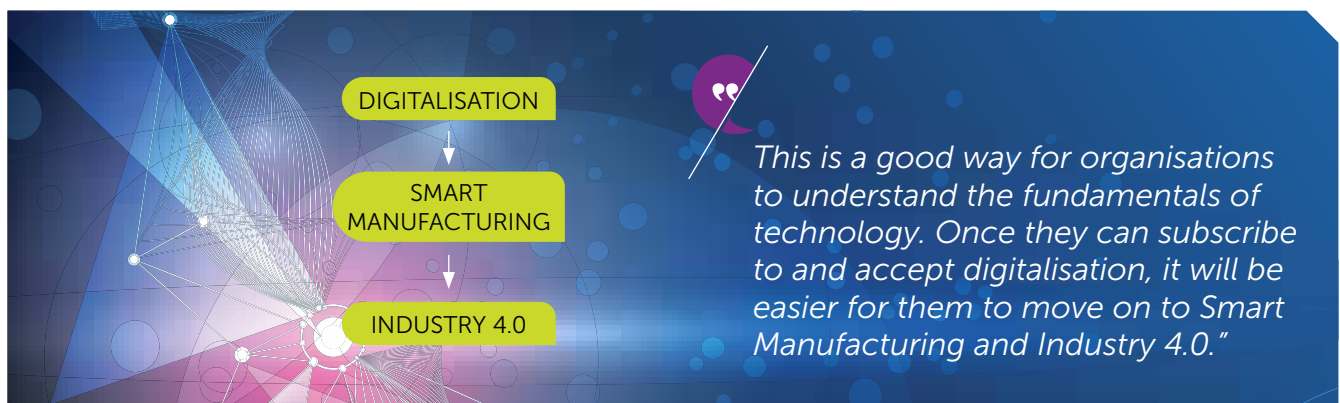
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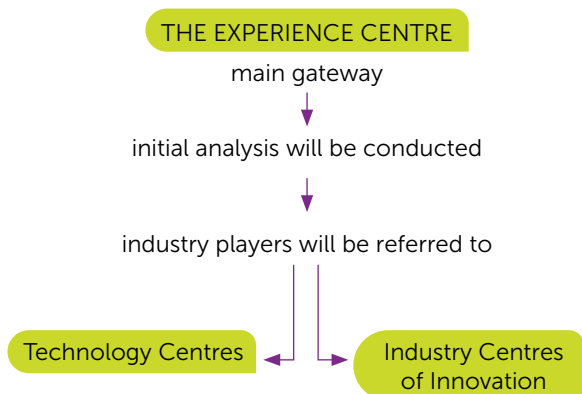
COMPREHENSIVE ECOSYSTEM

The healthcare sector is very important. This is especially crucial with the pandemic still at large. In view of that, SIRIM also plans to launch a Medical Device Innovation Centre in SIRIM Kulim soon. The centre, which will provide services related to the medical device sectors, is set to play an instrumental role in growing the medical device industry. For example, manufacturers of a newly developed medical device that needs to be tested will be able to make use of the facilities of the centre.

Also in the works is a Machinery and Manufacturing Innovation Centre at SIRIM Rasa. Having access to state-of-the-art machineries and facilities is important. With the centre, SIRIM will be able to assist industries in designing affordable machines that can enable them to sell quality products at a more affordable price.

These centres, together with the Smart Manufacturing Centre at Bukit Jalil, will create a holistic ecosystem for industry players. "This is something we have to build up. The Experience Centre is the main gateway where the initial analysis will be conducted, whereas the Machinery and Manufacturing Innovation Centre would be where industry players can go for fabrication, for example. If their needs are medical device-related, then they can go to the Medical Device Innovation Centre," elaborated Dr. Mohamad Jamil.



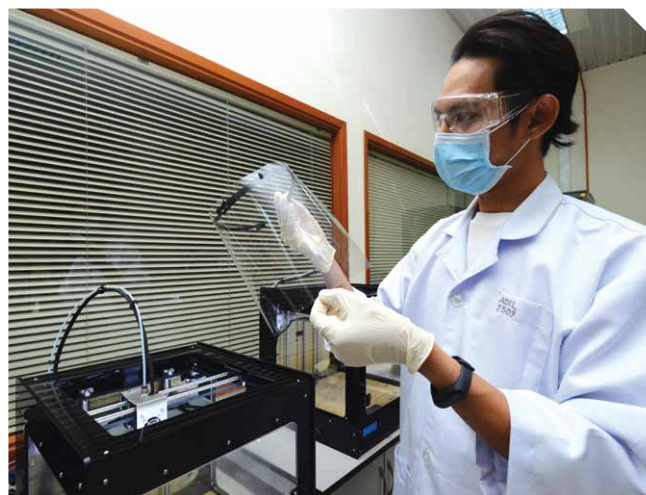


"This is why we can confidently say that we provide total solutions. We are like a one-stop centre. You don't have to go to different places."



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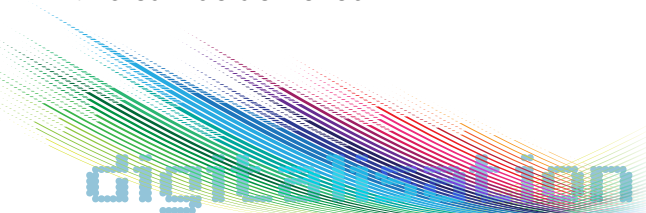


INCREASING AWARENESS

The culture of adopting digitalisation, even if it's simple digitalisation, needs to be subscribed by industry players. It is with practice that they will subsequently be able to embrace it with confidence. "This is the government's vision for the manufacturing sector within the next decade. The primary concern is how this can be achieved," said Dr. Mohamad Jamil.



This is the government's vision for the manufacturing sector within the next decade. The primary concern is how this can be achieved."



This is where SIRIM will work closely with its collaborators in upholding its responsibility towards building a whole ecosystem of which industry players can take advantage. "Our hope is that once it's properly established, it will be easier for the industries to support and adopt this idea," he concluded.



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UPHOLDING THE QUALITY OF MEDICAL DEVICES

An increase in demand for various medical-related devices and personal protective equipment (PPE) due to the COVID-19 pandemic has shone the spotlight on the importance of ensuring their quality. Playing a central role in upholding this is the Medical Device Authority (MDA) Malaysia.

EXEMPTION FROM REGISTRATION

The Medical Device (Exemption) Order 2016 was gazetted on 18 April 2016 to allow medical device exemptions from registration requirements under Section 5 of Act 737 for numerous purposes, including:

- >> Special Access Medical Devices
- >> Demonstration for marketing
- >> Education
- >> Clinical research or performance evaluation of the medical device(s)
- >> Custom-Made Medical Devices

An importer for or manufacturer of the above is also exempted from having to obtain a licence under subsection 15(1) of the Act. Nevertheless, prior to importing or manufacturing the device, the importer or manufacturer is required to submit a notification to the MDA, and await its acknowledgement, which gives permission for the device to be imported or supplied.

Source: Medical Device Authority

In the nation's battle against COVID-19, items like infrared thermometers, ventilators, face masks and COVID-19 test kits have gained prominence. Due to a sharp rise in demand for the aforementioned items during this time, the Medical Device Authority (MDA) allowed the importation and supply of unregistered medical devices in accordance with the Medical Device (Exemption) Order 2016 to facilitate the nation's efforts in alleviating the spread of the virus. These devices are referred to as Special Access Medical Devices.

"We've seen quite a big jump in the application of or notification for Special Access Medical Devices to be imported and supplied to the Malaysian market. Since the pandemic was declared, we have received almost 800 notifications and over 300 enquiries on this, or around a 10-fold increase compared to normal times," said Ahmad Shariff Hambali, the Chief Executive of MDA.



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PRIORITISING QUALITY

Ascertaining the quality of medical devices is important as these could affect the health and even lives of the users. In this context, quality refers to the safety and performance aspect of the device. The former points to its ability to be used safely to diagnose or treat diseases and injuries as claimed by the manufacturer. Efficacy Performance, on the other hand, refers to if the device is able to perform as claimed.



SERVING MALAYSIA'S MEDICAL DEVICE INDUSTRY

A statutory body under the Ministry of Health Malaysia, the Medical Device Authority (MDA) was established under the Medical Device Act 2012 (Act 738) to serve the country's medical device industry. Its primary responsibility is in controlling and regulating medical devices as well as the industry and related activities in the country. This is done through the implementation and enforcement of the Medical Device Act 2012 (Act 737), which aims to address

public health & safety issues

related to medical devices and facilitate the medical device trade and industry.

To ensure the quality of the device is upheld, it is important to conduct a thorough examination of the evidence that demonstrates the safety of the device and that all associated risks are properly mitigated. To do so, MDA needs to observe all the relevant evidence of the safety and performance of the device including clinical evidence showing that the device is effective as claimed by the manufacturer.

Based on the regulatory framework practiced in Malaysia, MDA looks at documented evidence of a device's performance during the registration process for the device to be supplied in the Malaysia market. The documents would include records of the testing done. Upon being registered, the device is deemed to have undergone all the necessary tests and complied with the relevant standards and regulations.

Nevertheless, performance issues may still arise. Recently, there were numerous observations of the improper reading and recording of the temperatures of patrons at public places, which could, in part, be due to the use of faulty thermometers. According to Ahmad Shariff, incidences

may occur from the time the device is manufactured to when it reaches the purchasers and thereafter that could compromise its performance. This is where market surveillance is important.

"This is what we have done with regards to the thermometers. We went to various places and collected a number of thermometers while also enquiring about performance testing conducted to verify the accuracy of the thermometers. Generally, this is one way to ensure the safety, performance and overall quality of the medical devices," he said.

There are many factors that should be taken into consideration to ensure the quality of a medical device from the design stage right up to when it enters the marketplace. During the design stage, for example, it is essential to identify the risks associated with the medical devices and to mitigate them. The risk analysis and management continues throughout the entire production process.

Even once the device is manufactured and placed in the market, there are still challenges along the supply chain. For example, during transportation or storage and even at the user's side, a lot of issues could affect the safety and performance of the medical devices.

"If the risks associated with the particular medical device are not looked into thoroughly at the design stage, it could cause safety issues at the hands of the user later. Similarly, some devices may require special storage, but if this requirement is not met, it could affect their performance," elaborated Ahmad Shariff.



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ENHANCING AWARENESS

Malaysia's medical device industry players can be categorised into three primary groups. The first group tends to have longer histories and more experience in complying with regulatory requirements in various countries.

The second group is typically newer. While they are willing to learn about and comply with the regulations, they may need further guidance. Finally, the third group is comprised of smaller-scale operators who are authorised retailers of medical devices but do not manufacture them.

"The first group tends to have a higher awareness level. They are well-versed, know what is required and are ever ready to comply with the regulations," explained Ahmad Shariff. "This means that we need to create more awareness among the other two groups to ensure that they are on par in terms of awareness level."

Among others, MDA is diligent in engaging regularly with industry players, including manufacturers, distributors and importers. This is done via seminars, workshops, forums and other similar platforms that provide an avenue for them to discuss about the importance of complying with regulations and how they can go about doing that.

"Besides that, it is also important to be able to reach out to the device users and the general public to create better awareness among them as well. One way of doing it is by hosting more seminars for this category of people, especially at public hospitals where we would be able to engage with the relevant medical personnel," continued Ahmad Shariff.



Besides that, it is also important to be able to reach out to the device users and the general public to create better awareness among them as well. One way of doing it is by hosting more seminars for this category of people, especially at public hospitals where we would be able to engage with the relevant medical personnel."

"In order to position Malaysia as a medical device industry hub, it is essential to help our local manufacturers to reach for a higher level and become global champions. This requires the concerted efforts of all parties – from the manufacturers to the agencies and the government. We also need to ensure that support in terms of finance, expertise, education and regulations, to name a few, needs to be easily available to them."

TAKING ACTION

Before the Medical Device Act 2012 came about, many products were brought into the Malaysian market with unsubstantiated safety and performance claims. Without having enough information at hand, there was a higher risk of the public being misled, which could have caused serious implications to their health and safety.

The implementation of Act 737 allows for the provision of relevant details that will allow the public to make informed choices. They are assured that the medical devices have complied with the relevant safety and performance standards, and have undergone the relevant safety performance tests before they are registered and placed into the market.

In terms of facilitating trade, the Act encourages compliance with regulations, which, in turn, can be akin to having one's foot in the door of the global medical device industry. "When the medical device manufacturers register their products with MDA, it means that they have already adhered to the requirements. This makes it easier for them to meet the requirements set out by other countries, register their products there and ultimately penetrate the global marketplace," said Ahmad Shariff.

"In order to position Malaysia as a medical device industry hub, it is essential to help our local manufacturers to reach for a higher level and become global champions. This requires the concerted efforts of all parties – from the manufacturers to the agencies and the government. We also need to ensure that support in terms of finance, expertise, education and regulations, to name a few, needs to be easily available to them," he declared.

Should the general public encounter any unregistered medical devices or even registered medical devices that they feel are not safe or accurate, they are encouraged to notify MDA at +603 8230 0300.

Ahmad Shariff Hambali
Chief Executive of MDA



The year 2020 saw the world being taken by surprise when the COVID-19 pandemic hit. Since then, we have been living in uncertainty. Can standards help us to recapture our daily routines amidst a new normal?

HERALDING A NEW NORM WITH STANDARDS

As Malaysia embarks on the recovery phase of the Movement Control Order (MCO), the safety and wellbeing of the people in the country continue to be a priority alongside efforts in reviving our economy. One way of ensuring this is in the development and implementation of standards for numerous items that have, in today's day and age, become an essential part of our daily lives. These standards will subsequently act as a benchmark in assuring the quality, safety and efficiency of the items.

While demand for these items has increased tremendously, so too have cases of consumers being cheated or hand sanitisers that either do not contain the required alcohol to be effective or are too strong and not friendly to the skin. These incidents are rife because there are no clear guidelines to follow. This is not only an issue for consumers but also affects industry players who do not have a basis to benchmark their products.

With that in mind, SIRIM has risen to the challenge. Currently, SIRIM STS Sdn Bhd (SIRIM STS) is in the midst of developing standards focusing on non-medical face masks, face shields and hand sanitisers.

According to Salmah Mohd Nordin, Head for WTO/TBT Enquiry Point, Technical Information and Consultancy Section under the Standard Research and Development Department at SIRIM STS, "When the pandemic started, countries began enforcing limited movement or even total lockdown, which caused considerable panic among the people and economies to grind to a halt. Now, we need to revive our economy and get it back on track, and industries need to be able to quickly resume operations at full scale.

A standard is a document approved by a recognised body that provides, for common and repeated use, rules, guidelines or characteristics for products and their related processes or production methods.

Compliance with standards is not mandatory. Nevertheless, they can be helpful to:

industry players

as a basis for quality control of production, benchmarking, quality assurance, compatibility and interchangeability of products and trade facilitation

consumers

offering protection of health, safety and the environment, assurance of the quality of goods purchased and services received, and protection against fraud or deceptive practices

>> The SIRIM Technical Library provides access to over 200,000 international and national standards



Salmah Mohd Nordin
Head for WTO/TBT Enquiry Point, Technical Information & Consultancy Section, SIRIM STS Sdn Bhd

"However, with no end in sight yet for the pandemic, people are still concerned about safety. In addition to being vigilant and observing the required standard operating procedures (SOPs), they need some form of assurance and guidelines on the more commonly used protective items, so they will have better peace-of-mind as they go out and contribute to the economy."

DEFINING THE BENCHMARK

Of course, one of the most common sights around the world now is the face mask. In Malaysia, the government has required the public to don face masks in crowded places and on public transportation since 1 August 2020. However, while there are standards for surgical masks and N95 respiratory masks, there is currently no existing standard for face masks for consumers.

This has left the general population who are not health workers in the dark as to what kind of face masks would offer the best protection for their needs. Another concern is the environmental impact of disposable face masks, which has also led to the production of reusable fabric face masks. As such, industry players like textiles manufacturers looking to expand their scope of services to meet this demand also need some form of guideline.

"Are they effective in protecting users from infection? Should all masks be tested to meet specifications for medical use? To answer such questions, we need a standard that prescribes the requirements for non-medical-use face masks," explained Salmah.

"Furthermore, at one point, face masks were scarce in the country. Our target is to encourage local production. We cannot predict if things will get worse, but we hope to have adequate supply locally," she added.

In developing the standards, SIRIM STS is referring to World Health Organization (WHO) guidelines as well as international studies and foreign reference documents. Aspects being considered include the quality and safety of the face masks, their performance in terms of filtration efficiency, breathability, materials used, shape and dimension, as well as long-term wearability and comfort.



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"Furthermore, at one point, face masks were scarce in the country. Our target is to encourage local production. We cannot predict if things will get worse, but we hope to have adequate supply locally."

In addition to gathering information, SIRIM STS is also in the midst of establishing a project committee comprising related parties including representatives from the Ministry of Health Malaysia and textiles industry.

PROVIDING ADEQUATE PROTECTION

As the COVID-19 outbreak is associated with body fluid exposure, there has been an increased attention to face and eye protection. Face shields offer an additional protective barrier for the facial area from fluids expelled due to physiological processes like vomiting, coughing and sneezing as well as in various medical, dental and veterinary procedures.

Face shields are generally used in conjunction with other personal protective equipment and are therefore classified as adjunctive personal protective equipment. In developing the standard for face shields, SIRIM STS has identified several aspects to look into.

"For one, they need to be able to fit snugly to offer a good seal to the forehead area and prevent slippage," explained



Traders would go to IBRC to test their hand sanitisers for safety and efficacy, which led to requests for a set of specifications on the safety of hand sanitisers. At the moment, we don't have any Malaysian standards specifically for hand sanitisers"

Siti Hadijah Hassan, Senior Executive. "Visors manufactured from acetate, propionate and polycarbonate, meanwhile, offer improved visual clarity."

She also suggested that face shields need to be of a full face length, with their outer edges reaching to the point of the ear, and include chin and forehead protectors with a cover for the forehead at minimum. "There should also be enough space between the wearer's face and the inner surface of the visor to allow for the use of ancillary equipment like eyewear," she added.

Another factor to look into is the cost-effectiveness of disposable versus reusable models and those that offer replaceable parts.

PRIORITISING SAFETY & EFFICACY

Right from the start when the pandemic first hit, SIRIM has been doing the best it could to help Malaysia weather through this trying time. Among others, the Industrial Biotechnology Research Centre (IBRC) formulated hand sanitisers.

"Traders would go to IBRC to test their hand sanitisers for safety and efficacy, which led to requests for a set of specifications on the safety of hand sanitisers. At the moment, we don't have any Malaysian standards specifically for hand sanitisers," said Nor Azian Duriat, Senior Executive.

In developing a standard for hand sanitisers, it's not just the percentage of ethanol that is important, but also the formulation, percentage of other materials used and suitability for all ages, cultures and religions, to name a few. Once the standard is published, consumers can use it as a guideline to make an informed choice.

Nor Azian hopes that the standard will increase awareness among the public on the safety aspects of hand sanitisers. "Not all hand sanitisers you find on shelves are safe for you and may cause detrimental reactions," she cautioned. Above all, she warned the public not to attempt to make their own hand sanitisers as they might not be as effective and might even be dangerous.



From left:
Siti Hadijah Hassan and Nor Azian Duriat
Senior Executives, SIRIM STS Sdn Bhd

For one, they need to be able to fit snugly to offer a good seal to the forehead area and prevent slippage. Visors manufactured from acetate, propionate and polycarbonate, meanwhile, offer improved visual clarity."

"There should also be enough space between the wearer's face and the inner surface of the visor to allow for the use of ancillary equipment like eyewear."

MOVING FORWARD

In facilitating the development of standards, SIRIM will work closely with the relevant stakeholders, including regulatory agencies like the Ministry of Health Malaysia, Department of Chemistry and Ministry of Domestic Trade and Consumer Affairs, dermatologists and consumer associations. The goal is for the standards to be widely accepted by the public and used by industry players as guidance for their production.

"Our target is to get the standards ready within four to six months. We are currently preparing the preliminary draft and have been referring to related research studies and WHO guidelines to compile the information into standard format. We will be getting stakeholders together to deliberate on the draft thereafter.

"We are currently focusing on developing standards for face barriers, face shields and hand sanitisers only, but we foresee that there may be more COVID-19-related standards needed as we progress," shared Salmah.

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ACCURACY THROUGH CALIBRATION

Presently, Malaysia requires businesses across the country to take the temperature of their patrons prior to allowing them entry. How confident can we be of the accuracy of the readings?



Amidst this pandemic, the infrared thermometer can be seen at all the premises that we go to; but how do we verify that the true reading is given? It is only through calibration that we will be able to tell if the instrument provides an accurate measurement."

The infrared thermometer is one of the icons that define the new normal in Malaysia's fight against COVID-19. This now ubiquitous medical device has become an essential item for current business operations. However, a faulty thermometer could render false positives or negatives, consequently negating the efficacy of a thermometer in alleviating the spread of the pandemic. This is why it is important to ensure that the thermometers being used have been properly calibrated and are performing at optimum levels.

The initial Movement Control Order (MCO), which was announced on 16 March 2020 and went into effect just two days later, caught many Malaysians by surprise. Understanding this, during that time, the Medical Device Authority (MDA) allowed for thermometers to be used without being sent for calibration first.

Nevertheless, in June 2020, with the start of the Recovery MCO that saw most businesses resuming operations, the MDA announced that from thenceforth, thermometers would need to be sent to the National Metrology Institute of Malaysia (NMIM) for accuracy tests before they are able enter the market. Subsequently, it is now also tracking down the thermometers that were allowed to be sold earlier and requiring for samples from these batches to be sent for testing.

"Amidst this pandemic, the infrared thermometer can be seen at all the premises that we go to; but how do we verify that the true reading is given? It is only through calibration that we will be able to tell if the instrument provides an accurate measurement," said Dr. Faridah Hussain, the Technical Director of NMIM.

Manufacturers or retailers of infrared thermometers have been required to obtain a licence from MDA. In order to do this, they need to send the thermometers for accuracy tests at NMIM.



According to her, accuracy is the value of reading by the instrument compared to the standard during the manufacturing of the unit. Accuracy will change with time due to the frequent usage and ageing of the electronic components of the unit, which is why calibration is necessary from time to time to measure how far the unit under test (UUT) deviates from the standard.

It would be difficult to tell if the measured value given by a thermometer that has not undergone an accuracy test is reliable or not. As such, it needs to be compared to the physical standard of a known measured value. NMIM has the capabilities to perform an accuracy test to determine this.

"As the national metrology laboratory, we are certified, both nationally and internationally, to perform the calibration. Our laboratories are furnished with primary standard equipment and helmed by a competent team of professionals," explained Dr. Faridah.



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Non-contact Thermometer



Contact Thermometer

TESTING THE THERMOMETERS

When it comes to calibrating thermometers, different types will require different calibration methods.

There are two broad categories of thermometers available; these are contact and non-contact thermometers. As the name suggests, contact thermometers refer to temperature measurement devices that operate via direct contact with the body. An example of a contact thermometer is the Standard Platinum Resistance Thermometer (SPRT). An infrared thermometer, on the other hand, is a non-contact thermometer that will conduct the measurement from a distance.

"Typically, accredited laboratories under the Skim Akreditasi Makmal Malaysia (SAMM) are the users of the SPRT, while industries use the PT100, glass thermometer and Thermocouple," explained Dr. Faridah. Meanwhile, medical-use contact thermometers would include the ear or oral digital thermometer.

For testing infrared thermometers in particular, NMIM requires manufacturers to submit a minimum of three to five samples. According to Dr. Faridah, notwithstanding backlogs, testing for non-contact thermometers would usually take seven days, while it could take up to two months for a contact thermometer to be calibrated. "This is because the SPRT, for example, will be calibrated against the fixed points of metal and water. To calibrate against the fixed point of metal, aluminium, silver and a few other metals are used. Thus it takes a longer time to get the precise measurement for each fixed point," she said.

DEFINING CALIBRATION

Calibration refers to the process of comparing the unit under test (UUT) that has an unknown value with a known value of a physical standard. Calibration is very important in order to check how far the measured value of the UUT deviates from the standard.

UPHOLDING ACCURACY

Every country has a metrology institute to cater for measurement-related issues. In Malaysia, the National Metrology Institute of Malaysia (NMIM) holds this responsibility. NMIM has been mandated to realise, maintain and ensure the continued maintenance of the National Measurement Standards and Certified Reference Materials via the National Measurement System Act 2007 (Act 675) to ensure trusted measurement results are produced. NMIM has also been appointed by the Ministry of Domestic Trade and Consumer Affairs (KPDNHEP) to act as Custodian to the Weights and Measures Act 1972 (Act 71) in advising the relevant ministers on all matters related to accurate measurement.

DID YOU KNOW?

The testing conducted on the infrared thermometers is considered non-destructive testing. This means that the device sent to the laboratory will not be damaged or destroyed in the testing process and will be returned to the manufacturer thereafter.

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"This is because the SPRT, for example, will be calibrated against the fixed points of metal and water. To calibrate against the fixed point of metal, aluminium, silver and a few other metals are used. Thus it takes a longer time to get the precise measurement for each fixed point."

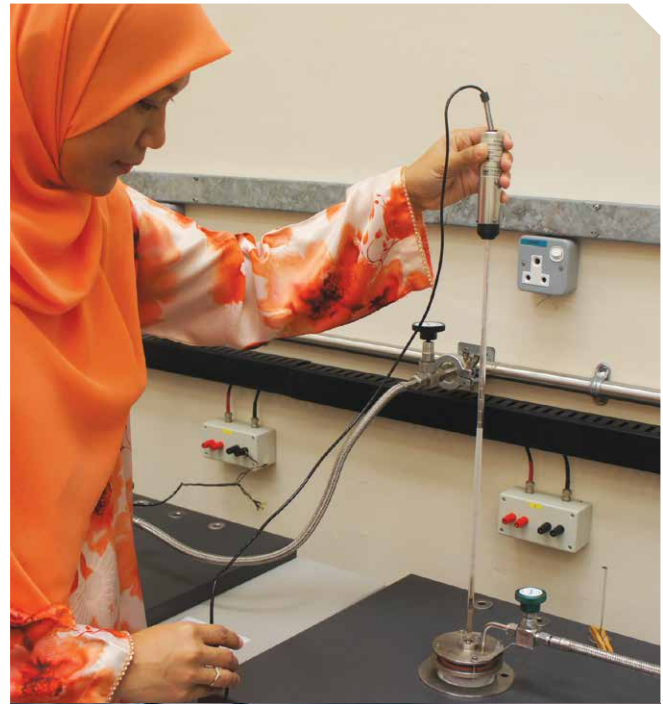
"When it comes to the infrared thermometer, we will run a few tests at temperature points from 35°C to 41°C, in adjusted and unadjusted mode, as well as the distance effect according to the ASTM E1965-98 (2016) guideline," she continued. The infrared thermometers come with different measurement distances; some will be between three and five centimetres while some range from three to seven centimetres from the forehead. This factor is also taken into consideration during the test, as well as when comparing the results between the forehead and the oral tests under set guidelines.

IMPROVING LIVES

ASTM International (formerly known as the American Society for Testing and Materials) is an international standards organisation that develops and publishes technical standards for a wide range of materials, products, systems and services. Presently,

**over 12,000
ASTM
standards**

are used all over the world. The ASTM E1965-98 (2016) guideline provides for a margin of error. Any discrepancies beyond the allocated range will result in the infrared thermometer not passing the test.



>> NMIM'S laboratory is certified locally and internationally, and features the latest equipment to address the varied calibration requirements of different devices

PRIORITISING RELIABILITY

From Dr. Faridah's observations, it is impossible to ascertain if places like shopping centres are using properly calibrated thermometers. Nevertheless, she advises the public to purchase their thermometers from MDA-approved manufacturers or retailers. "If you get your thermometer from unverified online platforms, for example, it will be difficult to determine if it has been calibrated properly and subsequently ensure the reliability of the product," she said.

This is where enforcement can play an important role. "This falls under the purview of the MDA and Ministry of Domestic Trade and Consumer Affairs (KPDNHEP). If the public is doubtful about the thermometer readings given, they can highlight this to them," she added.

With proper calibration, manufacturers and retailers can be confident of the product they are selling and consumers can be assured of the reliability of the device.

To find out more about NMIM's calibration services, manufacturers and retailers may contact serviceNMIM@sirim.my for further information.



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Dr. Faridah Hussain
Technical Director, NMIM

TESTING, AUDITS AND CERTIFICATIONS IN COVID TIMES

In stemming the spread of the COVID-19 virus and ensuring the health of patients and the nation at large, the safety and performance of medical equipment and personal protective equipment (PPE) have never been more important. SIRIM QAS International Sdn Bhd reveals how it has adapted to the circumstances to continue providing the necessary testing, audit and certification services to support the nation's endeavours.

The Malaysian government announced a Movement Control Order (MCO) to tide the spread of the COVID-19 pandemic in mid-March. This necessitated the reinvention of daily tasks. Although not spared from the challenges brought about by the MCO, as the country's leading testing, inspection and certification body, SIRIM QAS International Sdn Bhd (SIRIM QAS) found ways to continue doing its part in advancing our economy.

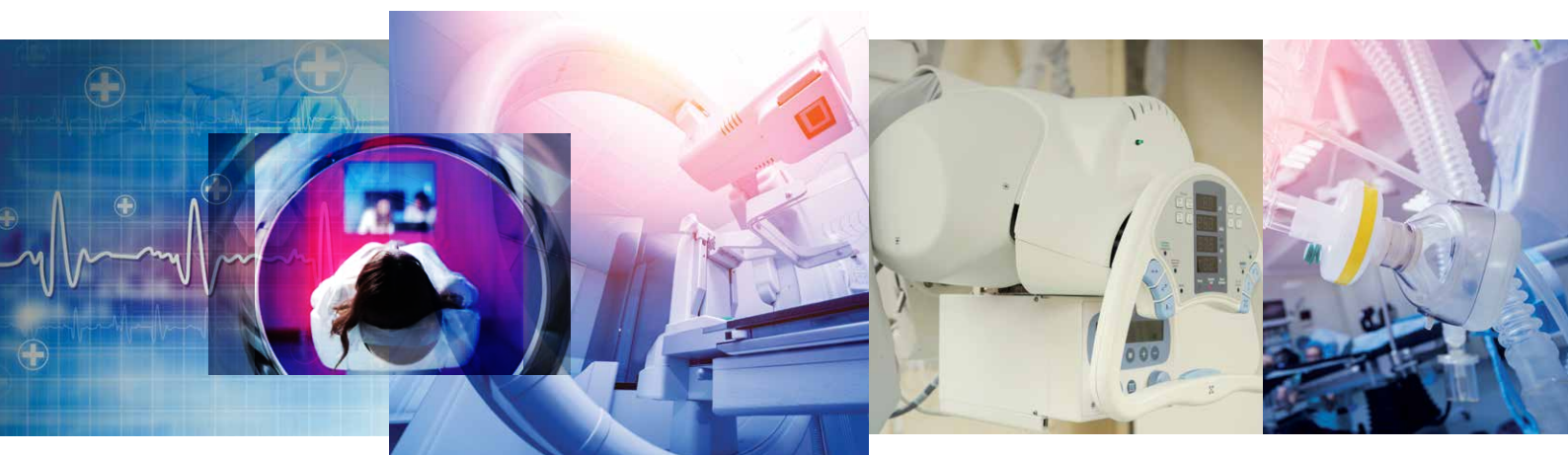
Among others, SIRIM QAS's role in carrying out tests on pandemic-related equipment like medical equipment and personal protective equipment (PPE) had to be prioritised to ensure that they meet the necessary safety and performance standards. These include medical devices that run on electricity like X-Ray machines and other medical imaging devices like CT scanners and MRI machines, electrocardiogram (ECG) machines and ventilators.

ENSURING THE SAFETY & PERFORMANCE OF MEDICAL ELECTRICAL EQUIPMENT & SYSTEMS

According to the International Electrotechnical Commission (IEC), medical electrical equipment will have to comply with the

IEC 60601 series

which details the general safety and performance requirements.



"These devices are vital for diagnosing and treating numerous medical conditions, which makes it even more important to ensure that they do not have any faults or malfunctions that could not only damage them but, more importantly, cause serious injury or even death to the operators and patients," explained Nur Fadhilah Muhammad, Senior General Manager of the Testing Services Department at SIRIM QAS.

Besides the medical electrical equipment and systems, SIRIM QAS also performs tests and inspections on surgical masks and gloves manufactured in, imported to or sold in Malaysia. With the current global health situation, this service not only helps protect public health but also ensures that Malaysia has a positive reputation as a source of such PPE.



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"In fact, we recently purchased some additional equipment to test face masks. As a bonus, we are able to collaborate with our counterparts in SIRIM that have the respective laboratories and experts to test the performance of the face masks in blocking out microorganisms."

"In fact, we recently purchased some additional equipment to test face masks. As a bonus, we are able to collaborate with our counterparts in SIRIM that have the respective laboratories and experts to test the performance of the face masks in blocking out microorganisms," added Nur Fadhilah.

Additionally, with the role of Internet of Things (IoT) becoming more prominent, there have been an increasing number of medical devices with wireless connectivity features. Type 1 Diabetes insulin pumps, for example, may be enabled to record the time and dosage of the insulin being administered and send the reports via Bluetooth to the patient's mobile devices, making it easier for them to keep track of their medication. SIRIM QAS is the appointed



certifying agency for such devices, and responsible for conducting tests to determine if they meet regulatory, safety and interoperability requirements.

"In boosting the digital healthcare industry in Malaysia, it is essential to enhance the capacity of medical device manufacturers in producing connected medical devices. At SIRIM QAS, we play a key role in taking Malaysia to that level," she said.

ADAPTING TO A NEW NORM

In its attempts to mitigate the adverse impacts of the pandemic, in particular the restrictions in travel brought about by the MCO and border lockdowns, SIRIM QAS has a host of offerings that include:

- >> Providing consignment services for imported appliances, which include inspection, sampling and testing right at the port of entry or warehouses
- >> Conducting remote witnessing/sampling so that auditors do not have to travel to specific sites to witness the testing or pick up samples
- >> Launching an online platform by the end of the year that allows for applications, payments, printing of receipts, reports, certifications, bookings of test slots in laboratory and more to be done by customers online

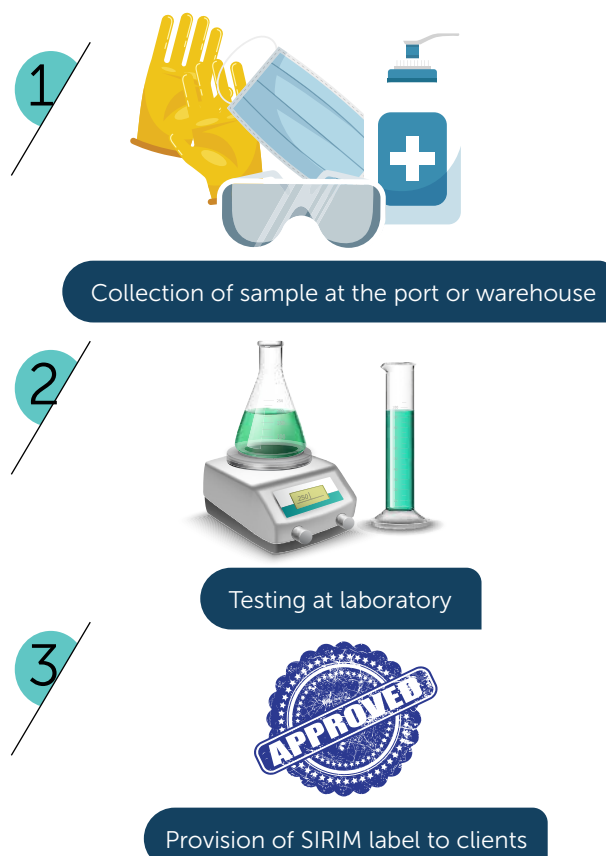
"We're also looking into the issuance of SIRIM-ST labels for appliances either certified under the SIRIM Product Certification Scheme or approved through our consignment service," shared Nur Fadhilah.



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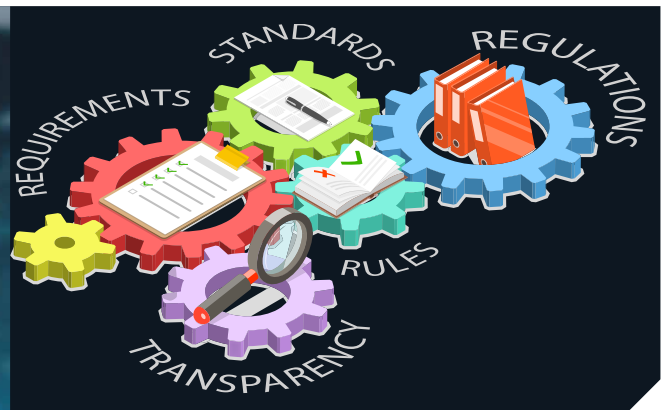
OPPORTUNITIES FOR BETTER SERVICES

A typical sample testing involves the following steps:





Electrical appliance distributors especially benefited greatly from this and the vans were fully utilised during the initial MCO phase as they were rushing to meet a surge in their sales. Upon trying out the service, they were won over by the convenience of it, and till today, the vans continue to be fully utilised."



When restrictions that resulted from the initial MCO phase meant that SIRIM QAS personnel were not able to head out to the port or warehouse easily for an inspection, the team had to turn to remote platforms to get the job done.

"A lot of improvising was required. As we were not allowed to go out, we had to be able to give our clients instructions on how to take a proper sample of their products, disinfect them and send them to us to do the testing," explained Nur Fadhilah.

As fate would have it, SIRIM QAS was just on the brink of introducing its mobile consignment testing services when the MCO occurred, which made things much easier. With the service, vans are fitted with the necessary testing equipment and driven to warehouses where samples could be taken and testing could be done right there and then.

"Electrical appliance distributors especially benefited greatly from this and the vans were fully utilised during the initial MCO phase as they were rushing to meet a surge in their sales. Upon trying out the service, they were won over by the convenience of it, and till today, the vans continue to be fully utilised," enthused Nur Fadhilah.

SIRIM QAS's remote audit and testing services also experienced a boom during this period. According to Mohd Hamim Imam Mustain, Senior General Manager of the Management System Certification Department at SIRIM QAS, remote audit or assessment in the broader context refers to where the assessor, auditor or inspector is not able to be physically present onsite and, as such, typically requires the facilitation of information and communications technology like Microsoft Teams, Skype or Zoom.

In actual fact, remote audits are not a new thing. Nevertheless, pre-pandemic, it was a small segment that served to complement the onsite process. For example, when conducting an onsite audit, e-mail or telephone might also be utilised.

"When the pandemic occurred, however, we couldn't go to the site at all and the organisation couldn't receive us. We therefore had to find a way to make remote audits more practical and effective," explained Mohd Hamim.

There are certain criteria that need to be fulfilled to ensure that the remote audit is able to run smoothly and SIRIM QAS personnel are confident that the organisation is meeting the requirements of the certification. Furthermore, while remote audits are generally accepted, there are certain schemes that may specifically require onsite audits only.

"This is especially useful during difficult times or extraordinary circumstances, such as the current pandemic or even riots. After all, the audit and testing will still need to be conducted to ensure that products and/or services comply with basic requirements and the subsequent continuity of the organisation's business," he added.



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Mohd Hamim acknowledged that the remote audit offering initially met with scepticism as most industry players felt that it would be a tougher process. However, after gaining a better understanding of what it entailed, they started to buy into the idea. "Of course, the MCO in March became the tipping factor for them. They had no choice but to try this service and became more accepting of it," he said.

ENHANCED EFFICIENCY

"Many organisations in other countries like China are starting to accept remote audits and testing," chimed in Nur Fadhilah. "This has proven to be a more cost-efficient measure as the organisations would not have to be concerned with accommodation and airfare costs and travel time."

Additionally, in certain situations, items that are large and bulky may not be easy to transport. This is where remote testing might be a better fit. "Instead of flying our officers all the way to the factories in China, we will instruct the team in China on what they need to do," she explained.

In upholding the credibility of the audit or testing process, SIRIM QAS strives to be as stringent as possible, even when adopting remote platforms. This includes ensuring that the testing equipment is properly calibrated, good visibility of the equipment and product being tested, and adequate lighting is available.



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From left:
Nur Fadhilah Muhammad
Senior General Manager, Testing
Services Department at SIRIM QAS

Mohd Hamim Imam Mustain
Senior General Manager,
Management System
Certification Department
at SIRIM QAS



"If the factory doesn't have good cameras that allow me to see the equipment or results clearly, or if I can't see the entire piece of equipment being measured and/or the reading, then that's not conducive for remote testing. I need to be able to see the whole process clearly," elaborated Nur Fadhilah.

BEYOND THE PANDEMIC

Mohd Hamim sees remote audits and testing becoming more popular beyond the COVID-19 pandemic, and looks forward to preparing SIRIM QAS to meet increasing demands. "Industries that are a distance away from us can save a lot in terms of logistics and accommodation, and still obtain international qualifications and recognitions," he declared.

Nur Fadhilah concurred, stating that remote audits and testing have become a trend that will be here to stay, particularly for organisations located in places that are hard to reach and those that prefer the convenience of this platform.

According to her, SIRIM QAS will be investing in more testing equipment for PPE as well as a dedicated space. "Besides realising that we didn't have enough facilities, the pandemic also made us realise that we have to change the way we work according to times. Remote offerings are becoming famous now and we have to be ready for it!"



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FACE MASK TESTING & CERTIFICATIONS FOR PUBLIC HEALTH AND SAFETY

Ever since face masks have been recognised as an indispensable item in the fight against COVID-19, the market has been inundated with an array of them in diverse materials and designs. How can we identify which ones are more effective?



In light of the COVID-19 pandemic, the World Health Organization (WHO) has recommended for face masks to be donned as an instrumental part of protecting against the spread of the virus. Consequently, there has been a flood of imported and locally manufactured face masks in the marketplace. To ensure that the quality and performance of the face masks sold in Malaysia are upheld amidst rising concerns about the current health situation, SIRIM is providing relevant testing and product certification services.

DID YOU KNOW?

According to WHO, face masks are believed to be able to help in reducing potential exposure risk from an infected person as well as preventing onward transmission when worn by an infected person. In addition to masks, the public should also adopt physical distancing; avoid crowded, closed and close-contact settings; ensure proper ventilation; clean their hands and cover sneezes and coughs, among others.



The testing and product certification will be conducted in accordance with the international BS EN 14683 standard for medical or surgical face masks."

The tests and inspections of the face masks are carried out by SIRIM QAS International (SIRIM QAS), a wholly-owned subsidiary of SIRIM Berhad, at its accredited state-of-the-art testing laboratories at the SIRIM Complex in Shah Alam, Selangor.

Mohd Azanuddin Salleh, the Chief Executive Officer of SIRIM QAS, explained that this provides assurance to the general public that the quality standards of the face masks are consistently maintained. "The testing and product certification will be conducted in accordance with the international BS EN 14683 standard for medical or surgical face masks," he added.

The medical face masks typically comprise three layers of synthetic non-woven materials, and incorporate filtration layers. These are available in varying thicknesses and provide differing levels of fluid-resistance and filtration properties.

The testing is applicable for three different types of medical face masks, namely:

- >> Type I – used to reduce the risk of spread of infections, particularly in epidemic or pandemic situations;
- >> Type II – principally intended for use by healthcare professionals in operating rooms or other medical settings with similar applications in Type I; and
- >> Type IIR – has similar applications as in Type II with additional Splash Resistance (R) properties

SIRIM QAS also has the capabilities to test and certify both reusable (fabric) and disposable (three-ply, single-use) non-medical face masks, covering characteristics such as Bacterial Filtration Efficiency (BFE), Differential Pressure, Splash Resistance Pressure (Synthetic Blood) and Microbial Cleanliness (Bioburden).

Besides offering assurance to consumers, the testing and certification services can also help importers and manufacturers to ensure that their products adhere to set requirements, thus improving their credibility and giving them a competitive edge. "Product conformity enables manufacturers and suppliers to differentiate their products in the market and gain consumer acceptance," shared Mohd Azanuddin.

According to him, SIRIM is steadfast in its commitment to nurturing confidence among Malaysians via the provision of its trusted services. "In these trying times, we pledge to intensify our efforts towards facilitating a safer and healthier future for all."

Product conformity enables manufacturers and suppliers to differentiate their products in the market and gain consumer acceptance."

"In these trying times, we pledge to intensify our efforts towards facilitating a safer and healthier future for all."

As Malaysia's leading conformity assessment body, SIRIM QAS has over 40 years of experience in providing certification, inspection and testing services in Malaysia and abroad. Through the years, it has attained numerous accreditations and recognitions from both Malaysian and international bodies, which reflect its capabilities in conformity assessments as well as facilitating acceptance of its certificates and test reports across the globe.

Please visit www.sirim-qas.com.my to find out more about SIRIM QAS's testing and certification services for face masks.

WHO recommends medical face masks for:

- >> Healthcare workers in clinical settings
- >> People who are not feeling well or caring for those who are unwell
- >> People aged 60 and above
- >> People with underlying health conditions

Non-medical fabric face masks can be used by the general public, particularly when other protective measures cannot be maintained.

THE RIGHT WAY

- 1  Do not share your mask with others
- 2  Ensure that your mask is not damaged
- 3  Clean your hands with an alcohol-based hand rub or soap and water before touching the mask
- 4  Adjust the mask to make sure that your mouth, nose and chin and properly covered at all times
- 5  Avoid touching the mask when wearing it

UPGRADING THE WORKFORCE TO ADVANCE THE NATION

Malaysia may now be at the recovery phase of the Movement Control Order (MCO). However, the negative economic impacts that ensued when the MCO was initially introduced continue to reverberate half a year later. This is where the right training programmes can help move the country forward.

Prime Minister Tan Sri Muhyiddin Yassin recently revealed that the Department of Statistics predicts a 5.5% unemployment rate or 860,000 jobless Malaysians for the year 2020.

The nation's economy was brought to a standstill earlier this year when the COVID-19 pandemic necessitated the imposition of a Movement Control Order (MCO) to contain the spread of the virus. To date, many of the MCO restrictions have been lifted, but businesses are still reeling from the aftermath, with many organisations, particularly small and medium enterprises (SMEs), still operating in survival mode and unemployment rates at a high.

As the country settles in to different ways of doing things, including work, obtaining new skills to adapt to the new normal has become a necessity. At times like this, training and upskilling can be beneficial for both organisations and individual employees.

Through the years, SIRIM, through its training and consultancy arm, SIRIM STS Sdn Bhd (SIRIM STS), has offered a wide range of training programmes that can be categorised into four main types, namely standards, best practices, soft skills and technology-based. The latter two in particular have been gaining popularity amidst the current trying circumstances.

When the MCO was enforced back in March, organisations had to shift abruptly to work-from-home mode. Even today, a portion of the workforce is still not able to go to work like usual. Because of this, they need to acquire new skills, such as how to communicate online and do marketing online."

SIRIM STS offers four main types of training programmes



"When the MCO was enforced back in March, organisations had to shift abruptly to work-from-home mode. Even today, a portion of the workforce is still not able to go to work like usual. Because of this, they need to acquire new skills, such as how to communicate online and do marketing online," explained Dr. Mohd Azman Idris, Senior General Manager of the Training and Consultancy Department at SIRIM STS.

With the increased dependency on technology to connect with clients and colleagues due to pandemic-related restrictions, digitalisation and an increase in computer literacy have become even more of a priority. Consequently, organisations need to pay attention to these new trends as they focus on retaining their personnel as well as other aspects such as digitalisation, Smart Manufacturing, digital marketing and Internet of Things, where the operations of the organisation can be done seamlessly regardless of the physical presence of its staff within the premises.

IMPROVING COMPETENCIES

Training and development programmes typically yield plenty of benefits to both organisations and employees. These include:

- >> Boost job performance and productivity
- >> Encourage positive work attitude, employee engagement and morale
- >> Facilitate interpersonal and professional growth
- >> Enhance organisational efficiency and resilience
- >> Encourage new innovations and technologies
- >> Improve quality and consistency

ENHANCING CAPABILITIES

Backed by a competent pool of highly experienced industry trainers and consultants, the training and consultancy arm of SIRIM STS aims to upgrade the skills and capabilities of local industries via the provision of courses, seminars, workshops, conferences, in-house trainings, packaged training programmes and consultancy services.

Since **1997**
Assisted
>250,000
individuals and
>850

organisations across the world to achieve various accreditations, certifications & recognitions.

This has become even more essential in a COVID-19-ravaged world, where increased bottom lines have become more important than ever. "For example, at SIRIM STS, we conduct a lot of training focused on quality. This leads to an improvement in product quality, fewer rejects and more satisfied customers," cited Dr. Mohd Azman.

An increase in motivation and commitment among staff, meanwhile, will encourage them to contribute more. "From the staff's point of view, training can also become a tool for their career development," he added.

PREFERRED NAME

As part of a brand that has been synonymous with upholding quality for over 50 years, SIRIM STS has established a strong foundation as a preferred training provider and is approved by the Human Resources Development Fund (HRDF), Department of Occupational Safety and Health (DOSH), Jabatan Kemajuan Islam Malaysia (JAKIM), Malaysian Palm Oil Certification Council (MPOCC), American Welding Society (AWS) and Department of Skills Development of Malaysia (JPK), just to name a few.

"We've had clients from the public and private sectors locally and overseas, including countries like China, Korea, Japan, Taiwan, Vietnam, Indonesia and even Uganda, Nigeria and Egypt in Africa. In fact, there are numerous countries in Africa that consider Malaysia a model country," elaborated Dr. Mohd Azman.



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"From the staff's point of view, training can also become a tool for their career development."

He said this can be attributed to SIRIM STS's reputation. "We have gained the trust of the public, and our training programmes are widely accepted by industries. In the last five years alone, we have trained more than 14,000 participants each year!"

Additionally, SIRIM STS trainers are well-known for being very competent and skilled with the relevant industry experience to be able to provide the hands-on knowledge that industry players are looking for.

In improving the competencies and capabilities of personnel involved in quality management, SIRIM STS also offers a range of SIRIM Personnel Certification programmes. Since 2015, 21 programmes have been introduced and 292 personnel have been certified under this banner.

"The SIRIM Personnel Certification programmes help industry players to improve their knowledge further, in addition to attending regular ISO training. Besides training and building up local expertise to meet industry demands and contribute towards a high income workforce, these programmes offer a great opportunity for personnel to enhance their resume," said Dr. Mohd Azman.



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Among others, SIRIM STS has been appointed by JAKIM to conduct halal training programmes, and has even sent its trainers to Japan to train their halal auditors. The halal certification programmes have been growing in popularity in tandem with increasing demands from the expanding food industry. With the aerospace industry being identified by the government as a sector with high growth potential, another programme that has seen an increase in demand is

the Certified Aerospace Management System Professional programme. This programme was designed to recognise the competency of those who will, in turn, be training others for the aerospace industry.

In addition to being open to organisations and the public, the SIRIM Personnel Certification programmes are also conducted at selected universities, providing opportunities for students to gain hands-on knowledge on top of their degree studies, with the Certified Quality Professional/Manager programmes being especially popular among Master students. This allows the graduates to hit the ground running when they enter the workforce. "This becomes an added value for them, preparing them for the real world and giving them a competitive edge when they interview for jobs," said Dr. Mohd Azman.

According to him, SIRIM strongly believes that those certified by them will be able to meet the demands of the working world. "In order for us to award the certification to someone, we will make sure that they are able to deliver according to expectations," he said.

Likewise, organisations generally feel confident about the training offered by SIRIM STS. "Organisations want someone who is able to apply the knowledge in practical terms, and they know that personnel certified by us will be able to deliver."



SIRIM STS's training offerings are able to provide a wide range of solutions to address industry needs. "That is the beauty of SIRIM. Some training providers offer just soft skills training, while some focus on just technology, for example. We have comprehensive offerings to equip industry players with all the necessary skills they need to succeed," he continued.

FACILITATING ECONOMIC GROWTH

As a training provider, SIRIM STS needs to have its finger on the pulse of current trends and future needs that are critical for the survival of local industries. For example, in line with the government's focus on anti-bribery, SIRIM STS provides anti-bribery management system training.

This becomes an added value for them, preparing them for the real world and giving them a competitive edge when they interview for jobs.

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That is the beauty of SIRIM. Some training providers offer just soft skills training, while some focus on just technology, for example. We have comprehensive offerings to equip industry players with all the necessary skills they need to succeed."



While SIRIM STS has introduced online training since November 2019, there has been an increase in interest for this mode of training since April due to the pandemic, and we foresee that demand will continue to increase as online training is typically cheaper and more convenient for participants."

In light of the on-going pandemic, SIRIM STS also has numerous training initiatives to encourage the growth of the economy during these times of uncertainty. One of these is the Business Continuity Management System training.

"Because of COVID-19, some organisations are finding it difficult to sustain their business. A business continuity plan would give them a path to forge on forward," explained Dr. Mohd Azman.

At times like this, best practices programme packages tend to be prioritised subsequent to obtaining the necessary standards training. On top of standards management, in order to sustain a business, an organisation needs to be well-versed in best practices to benchmark against its competitors.

Other training programmes that have been popular include those that focus on digital and online marketing and facilitate the acquisition of new skills, such as the ability to utilise various communication platforms like Microsoft Teams and Zoom.

"They need adequate training on how to apply the respective tools so that the business can continue running smoothly, no matter where the people are," said Dr. Mohd Azman.

Concurrently, online training modes have also been gaining favour as organisations hope to still be able to enhance their staff competencies no matter what restrictions might be imposed, for example, if the MCO is extended and remote training becomes a necessity.

With online training increasing in popularity, SIRIM has also been able to widen its reach more effectively. For example, a training programme conducted in Shah Alam, Selangor, may include students all the way from Sabah or Sarawak, or even other countries in the world.

"In fact, this could be an opportune time to encourage one's staff to acquire new skills. Some organisations have had to schedule for their workforce to go in to work in batches. Why not use the free time to acquire knowledge? They can sign up for online training and obtain a certification in the end that could be beneficial both for the organisation as well as their own career development!" declared Dr. Mohd Azman.

LOOKING AHEAD

In helping local businesses to compete in the international arena, SIRIM STS looks forward to offering more training programmes focused on Industry 4.0 and Smart Manufacturing on remote or virtual platforms for those looking for online training due to COVID-19 restrictions or for their convenience.

"While SIRIM STS has introduced online training since November 2019, there has been an increase in interest for this mode of training since April due to the pandemic, and we foresee that demand will continue to increase as online training is typically cheaper and more convenient for participants," said Dr. Mohd Azman.

SIRIM STS anticipates coming up with new training services that are relevant to industries' needs from time to time. These would include offering revised training materials each time a standard needs to be updated or revised. Interested parties are therefore encouraged to check the SIRIM STS website at www.sirimsts.my or Facebook at facebook.com/SIRIM.STS regularly for the latest developments.

Dr. Mohd Azman Idris
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Training and Consultancy
Department, SIRIM STS Sdn Bhd





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