SIRIM

ANNUAL REPORT 2012

SIRIM Berhad

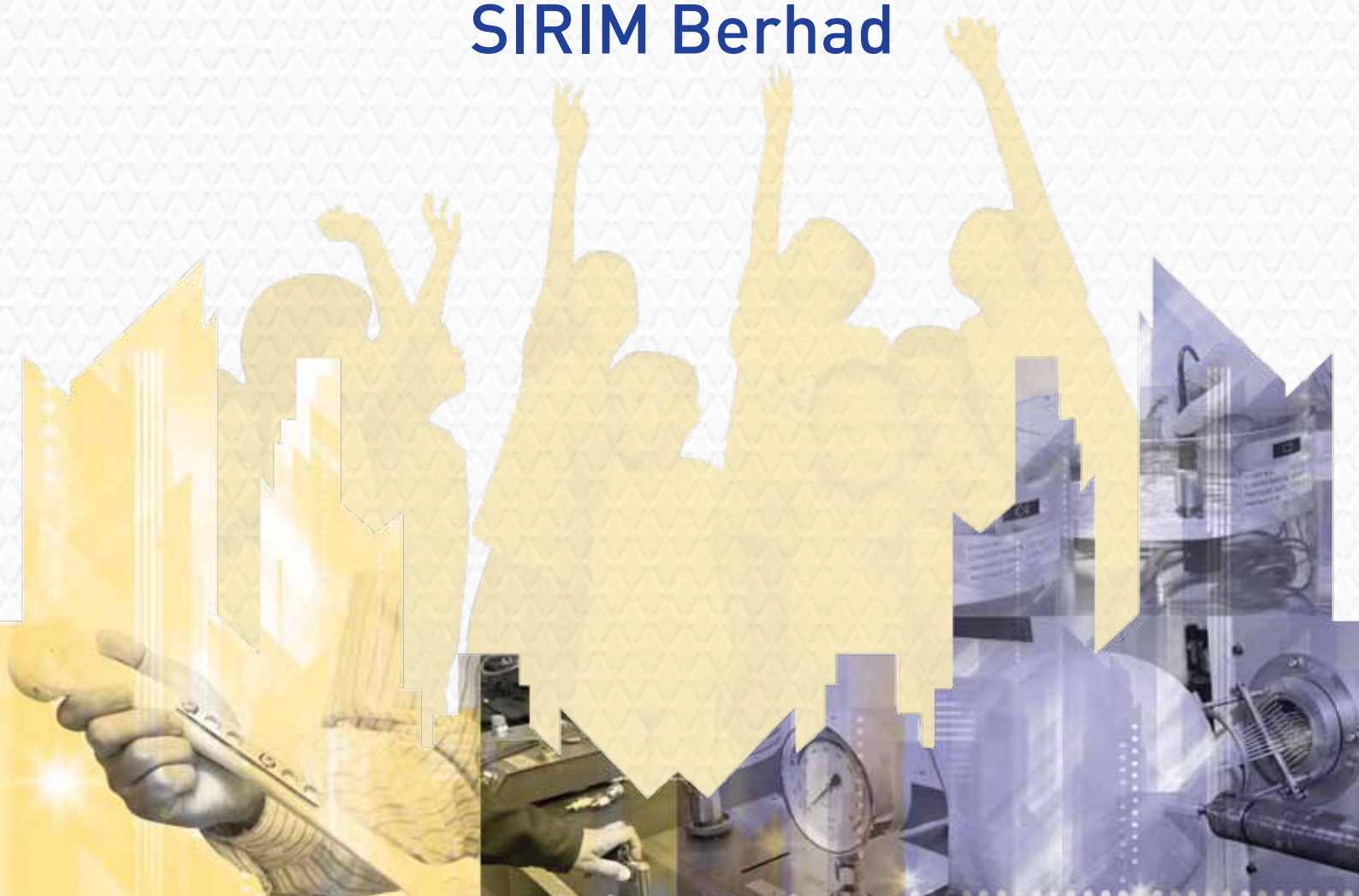


TABLE OF CONTENT

VISION MISSION

Vision

A Premier Total Solution Provider in Quality and Technology Innovation

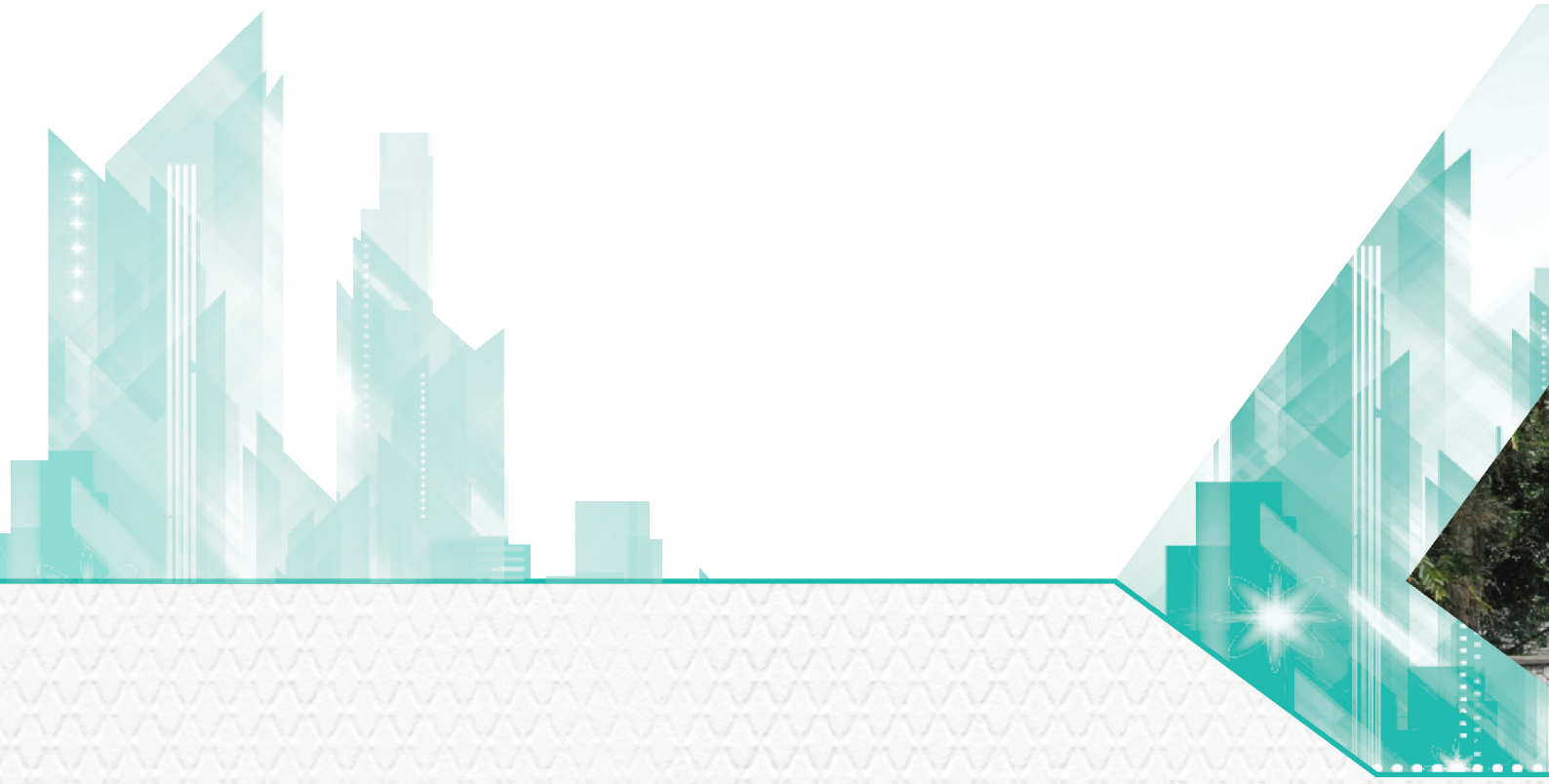
Mission

As a Leader in Quality and Technology Development, we:

Efficiently deliver customised technology and quality solutions to industry and government,and support inclusive growth through innovations

Enhance customers' business competitiveness and growth through applied industrial research and technology

Facilitate trade, and enhance health, safety, environment and customer confidence through quality, standards and conformity assessment



Roles

The champion of quality

A national research and technology development corporation

A vehicle for technology transfer

A provider of institutional and technical infrastructure for government

Objectives

To innovate and develop processes, products and technologies for industry

To promote standardisation and quality

To provide technical services for industry and the Public

Functions

Plan, develop, operate and manage national strategic facilities and programmes

Develop, operate and manage strategic research programmes

Operate testing laboratories and quality assurance schemes

Undertake development programmes for small and medium-scale enterprises

BOARD OF DIRECTORS

1. Datuk Hjh. Jamaliah Kamis
Chairman

Date appointed: 20 May 2009

Chairman of SIRIM Berhad. Former Chief Secretary of the Ministry of Rural & Regional Development and previously held various posts as Deputy Chief Secretary at the Ministry of Education and Ministry of Rural Development.

2. Dr. Zainal Abidin Mohd Yusof

Date appointed: 1 Feb 2012

Began his career in SIRIM Berhad as a Research Officer and held various posts until appointed as the Vice President of Research and Technology Development Division.

3. Tan Sri Dato' Dr. Mohamed Salleh Mohammed Yasin

Date appointed: 22 Sept 2004

A Director at the United Nations University, International Institute for Global Health.

4. Dato' Syed Ahmad Idid Abdullah Idid

Date appointed: 2 June 2008

Also a Board Member of Korn/Ferry International. A guest writer (Distinguished Academic Fellow) at the Research Management Centre of the IIUM International Islamic University.

Company Secretary : Muhammad Suria Doshi Abdullah & Khairul Muphinora bt Mahizan

5. Ahmad Shahab Din

Date appointed: 2 June 2008
Former Group Company Secretary at Magna Prima Berhad and member of Malaysia Institute of Chartered Secretary & Administrators (MAICSA)

6. Dato' Dr. Sharifah Zarah Syed Ahmad

Date appointed: 14 Oct 2009
Deputy Secretary General at the Ministry of Science, Technology and Innovation (MOSTI). She was appointed as a Minister Counsellor in 2000 at the Permanent Mission of Malaysia to the United Nations in New York.

7. Datuk (Dr.) Ir. Abdul Rahim Hj. Hashim

Date appointed: 3 Feb 2004
President of International Gas Union and Malaysian Gas Association. Former Vice President of Research & Technology Division, PETRONAS.

8. Dato' Dr. Md. Khir Abdul Rahman

Date appointed: 3 Feb 2004
Former Chief Executive and Board Member of Telekom Malaysia Berhad. Chairman of AG Genesis Sdn Bhd and Symmid Corporation Sdn Bhd and also Chairman of National Precision Tooling Sdn Bhd (subsidiary of SIRIM Berhad).

9. Khalimatun Saadiah Mohd Khalid

Date appointed: 26 March 2009
Principal Assistant Secretary at the Investment, MKD and Privatisation Division, Ministry of Finance.

Nor Rashid Ismail

Vice President
Corporate Division

Dr. Zainal Abidin Mohd Yusof

President and
Chief Executive
(from 1 February 2012)

Azim Ng Abdullah

Vice President
Standards & Quality Division

Khalidah Mustafa

Managing Director
SIRIM QAS International
Sdn. Bhd.

Ir. Dr. Mohamad Jamil Sulaiman

Vice President
Design & Engineering
Division

MANAGEMENT TEAM

As at
1 November 2012

Mohamad Nasir Abdul Wahid

Senior General Manager
Product Design and
Engineering Centre

Dr. Wan Abdul Rahman Jauhari Wan Harun

Senior General Manager
Advanced Automation And
RFID Centre/ Engineering
Consulting Centre

Suhaimi Mahmood

General Manager
Automotive Engineering
Centre

Azman Hassan

General Manager
Security Printing Centre

Dr. Abdul Kadir Masrom

General Manager
Nanotechnology
Focal Point

Zulkefly Songip

General Manager
Research Grant Secretariat

Dr. Azmi Idris

Senior General Manager
Advanced Materials
Research Centre

Dr. Chen Sau Soon

Senior General Manager
Environment Technology
Research Centre

Dr. Ahmad Hazri Ab Rashid

General Manager
Industrial Biotechnology
Research Centre

Ir. Dr. Ahmad Zainal Abidin

General Manager
Renewable Energy
Research Centre

Abdul Aziz Long

Senior General Manager
Standards Research and
Management Centre

Abdul Rashid Zainal Abidin

Senior General Manager
National Metrology Laboratory

Mohd. Ghazali Mohd Yunos

Senior General Manager
SME Development Centre

Ong Chui Koon

Senior General Manager
Intellectual Property Centre

Azizah Che Mat

Senior General Manager
Group Human Resource
Department

Khairul Muphinora Mahizan

Senior General Manager
Group Finance Department

Abdul Ghani Abdul Rahman

General Manager
Group Procurement
Department

Mohd Fauzi Ismail

General Manager
Group Asset Management
Department

Zurina Mohd Bistari

General Manager
Group Information
Technology Department

Raja Yahya bin Raja Ariffin

General Manager
Group Corporate Affairs
Department

Wan Mohd Silmi Mohd Yaacob

Senior General Manager
Group Internal Audit
Department

Noraini Kassim

General Manager
Office of the President
and Chief Executive

Muhammad Suria Doshi Abdullah

Senior General Manager
Group Legal and Company
Secretarial Department

Nor'afiza Saim

General Manager
Group Quality and
OSHE Department

Goay Peck Sim

Senior General Manager
Group Strategic Planning
Department /
Commercialisation Centre

Dr. Abd Rahim Saad

Senior General Manager
Strategic Marketing
Department

Rosmina Mustafa

General Manager
Programme Coordination
and Monitoring Department

Dr. Rohani Hashim

Secretary General
WAITRO Secretariat

Futom Shikh Jaafar

Senior General Manager
Malaysia Design Council
Secretariat

Abdullah Abd Hamid

Senior General Manager
Asset Venture Department

Zulkifli Abdullah

Senior General Manager
Angkasa Project

Parama Iswara Subramaniam

Senior General Manager
Management System
Certification Department
SIRIM QAS International Sdn. Bhd.

Nur Fadhilah Muhammad

Senior General Manager
Testing Services Department
SIRIM QAS International
Sdn. Bhd.

Haliza Ibrahim

Senior General Manager
Corporate Services
Department
SIRIM QAS International
Sdn. Bhd.

Dr. Mohd. Azman Idris

Senior General Manager
SIRIM Training Services
Sdn. Bhd.

Ab Halim Ab Rahman

Chief Operating Officer
National Precision Tooling
Sdn. Bhd.

Basori Selamat

Senior General Manager
Product Certification and
Inspection Department
SIRIM QAS International
Sdn. Bhd.

ORGANISATIONAL STRUCTURE

As at
1 November 2012

PRESIDENT AND CHIEF EXECUTIVE

AUDIT AND ACCOUNTS COMMITTEE

GROUP INTERNAL AUDIT DEPARTMENT

STANDARDS AND QUALITY DIVISION

STANDARDS RESEARCH AND MANAGEMENT CENTRE

NATIONAL METROLOGY LABORATORY

SME DEVELOPMENT CENTRE

INTELLECTUAL PROPERTY CENTRE

CORPORATE DIVISION

GROUP HUMAN RESOURCE DEPARTMENT

GROUP FINANCE DEPARTMENT

GROUP PROCUREMENT DEPARTMENT

GROUP ASSET MANAGEMENT DEPARTMENT

GROUP INFORMATION TECHNOLOGY DEPARTMENT

GROUP CORPORATE AFFAIRS DEPARTMENT

SIRIM STATE OFFICE

PRESIDENT'S OFFICE

OFFICE OF THE PRESIDENT AND CHIEF EXECUTIVE

GROUP LEGAL AND COMPANY SECRETARIAL DEPARTMENT

GROUP QUALITY AND OSHE DEPARTMENT

GROUP STRATEGIC PLANNING DEPARTMENT

STRATEGIC MARKETING DEPARTMENT

PROGRAMME COORDINATION AND MONITORING DEPARTMENT

WAITRO SECRETARIAT

MALAYSIA DESIGN COUNCIL SECRETARIAT

COMMERCIALISATION CENTRE

ASSET VENTURE DEPARTMENT

ANGKASA PROJECT

"AND IN IMPROVING OTHERS, WE IMPROVED OURSELVES"

INNOVATION AHEAD

SIRIM has come a long way since its inception in 1975. Over the years, the company has evolved from a local organisation into a leading national institution for industrial research and development and standards and quality. Along the way, we have played a key role in Malaysian industry by assisting the development of both large industrial players and smaller entrepreneurs. We have also raised the profile of Malaysian technical competence in international standards development committees.

Today, SIRIM is forging itself anew as a centre for innovation. In the face of a changing economy, SIRIM already provides more comprehensive, end-to-end solutions for key sectors such as energy, green technology and medical solutions. But in order to stay relevant to Malaysian enterprises, SIRIM must also achieve business growth in a sustainable manner by exploring new opportunities and meeting the constantly evolving needs of the nation's industry.

In 2012, SIRIM began to address these challenges in earnest. In the last quarter of the year, we introduced a new Vision and Mission along with a Six Strategy Transformation Plan which will see SIRIM become a more customer-oriented, business-driven organisation in line with the government's call for research institutes to commercialise their innovations. SIRIM's transformation will make the company a catalyst for the growth of technology and innovation in Malaysia – an important economic characteristic if the country is to become a higher-income economy as intended by the National Economic Policy (NEP).

Both the Economic Transformation Programme (ETP) and other key government initiatives such as the Science and Technology Human Capital Roadmap and the National Innovation Strategy (NIS) recognise the importance of innovation in a modern economy. As noted by the World Economic Forum (WEF), Malaysia already has a high capacity for innovation, and the country's renewed focus on creating a technology ecosystem will further improve the country's attractiveness for high-technology investments. SIRIM's transformation will allow the company to not only participate in economic growth, but also to grasp opportunities arising from the ETP as it assumes a bigger role in inspiring innovation and creating a more conducive ecosystem for science and technology to thrive.

SIRIM has the expertise and experience to grow innovation in National Key Economic Areas (NKEAs) such as Electrical & Electronics, Agriculture and Palm Oil. We are also supporting Entry Point Projects (EPPs) such as solar and light-emitting diodes (LED) through the development of product standards for solar products and LEDs. We must be vigilant to seize the opportunities that will arise from these NKEAs and anticipate the needs of these industries as they develop.

To achieve this goal, SIRIM must form strategic partnerships and collaborate with industry leaders in both the government and private sector. In addition to the commercial benefits these collaborations will bring, SIRIM will also gain a deeper understanding of the needs of the market and get better insights into how we may align our services offerings to match industry needs. This will in turn allow us to ensure greater business sustainability over the mid to long-term.

SIRIM's reputation as a leader in environmental technology also continues to grow. In the area of Renewable Energy, we have developed MYRemap: a web-based interactive geospatial map that allows users to view the renewable energy resources available in the country including palm biomass, forest residue, mill waste, municipal solid waste, paddy mill waste, chicken manure, micro hydro, solar energy, wind energy and ocean energy. With more than 20 years of experience in Energy Management services such as Energy Auditing for Building and Industrial processes, SIRIM will continue to play an active role in this area as the demand for these services is highly sought-after by the industries. In respond to government initiatives to improve energy efficiency, our subsidiary, SIRIM QAS International has launched the

> WE EMBARKED ON A FIVE-YEAR STRATEGIC PLAN THAT WILL TRANSFORM THE WAY THE COMPANY DOES BUSINESS.

Energy Efficiency Laboratory in May 2012. The lab is used for testing the energy efficiency under the Energy Commission's STAR labeling programme such as lamps/ lighting, refrigerators and air conditioners.

SIRIM's transformation is also geared towards changing our standing on a regional and global scale. At the national level, SIRIM holds place of pride in spearheading technology, quality and standards development. At the same time, our role as the secretariat of the World Association of Industrial and Technological Organisations (WAITRO) and our ties with leading regional R&D institutes will open up more avenues for knowledge-sharing.

By remaking SIRIM through our Six Strategy Transformation Plan, we will refocus our business plan, improve product and service delivery, develop new business areas and chart new horizons for the company. This journey of transformation will not be easy. It will require the effort, experience and expertise of all staff and management to ensure we stay at the forefront of emerging trends. However, I am confident that we will meet this challenge to drive the national innovation agenda and transform SIRIM into one of the best quality and technology institutions in the world.

EMPOWERING THE COMMUNITY

Although much of 2012 revolved around the company's transformation, I am happy to note that SIRIM did not neglect its responsibilities towards the community and small and medium enterprises (SMEs).

Our campaign to bring technology to rural Malaysians led SIRIM to provide the community in Lubok Antu, Sarawak with a micro-hydro system that supplies the longhouse with free electricity 24-hours a day. The RM1 million project was funded by the Community Innovation Fund under the Ministry of Science, Technology and Innovation (MOSTI) and is now fully maintained by the community after its handing-over. This project is a breakthrough in SIRIM's endeavours to empower communities through technology.

The seaweed industry in Semporna, Sabah sustains over 650 families in the area, and the community rice bowl was strengthened in 2012 via a combination of SIRIM projects utilising innovative and sustainable technologies. These projects included erecting energy-independent solar-thermal dryers, advancing new seaweed harvesting technologies and developing 12 cosmetic products containing bioactives from the marine produce that are now awaiting commercialisation.

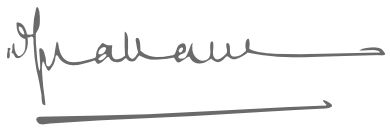
SIRIM also played a role in the Year of Science and National Innovation Movement 2012 (SGI2012) via initiatives that included Roboclinic sessions in secondary schools and by holding related discussions, seminars and workshops throughout the year. We also encouraged skill-based careers by signing an MoU with the American Welding Society (AWS) to implement a Welding Examination course for local polytechnic students. Those who passed their examination are now globally recognised as certified welders.

SMEs remain a big part of our business focus, and more than 1,000 small businesses have benefitted from entrepreneurial schemes such as MITI's Groom Big programme implemented by SIRIM. Such schemes not only increase the competitiveness of these SMEs in both the local and global markets but also allow them to benefit from the government's Green Lane Policy: an initiative that acknowledges the contributions of competitive and innovative local SMEs under the Tenth Malaysia Plan.

Serving society has, and will continue to be a key agenda for SIRIM. We will strive to increase the awareness of science and technology among communities while improving their economic opportunities and capabilities in 2013.

I am pleased to note that SIRIM's new leadership under Dr Zainal Abidin Mohd Yusof was instrumental in ensuring innovation took centre stage in all our activities in 2012. Innovation has been identified as the main mechanism to improve Malaysia's competitiveness and to attain the objectives of the New Economic Model and the Tenth Malaysia Plan, and I am happy that Dr Zainal Abidin and his team contributed to these objectives by taking the nation's technology, quality and standards to new heights.

On behalf of the Board of SIRIM, I would like to congratulate and extend my deepest appreciation to the management and staff of the Group for their never-ending support and emphasis on excellence in delivering total solutions to customers and stakeholders. I am confident that your zeal will continue to shine through as we transform SIRIM into a premier facilitator for technology and innovation for the betterment of the nation.



DATUK HAJAH JAMALIAH KAMIS

Chairman
Board Of Directors

PREPARING TO MEET THE CHALLENGE

The year 2012 was of both action and preparation. We once again made for discoveries and developed innovative solutions to give businesses higher value and competitive edge. Thus, we moved a step closer to effecting the company's transformation into the premier total solutions provider in quality and technology innovation, one that will provide the necessary experience and expertise that our stakeholders, from government agencies to businesses to end-users need.

SIRIM's Six Strategy transformation plan will see SIRIM's developmental activities aligned to our three 'flagships' of Energy & Environment, Medical Technology and Plant & Machinery. These flagships are all key focus areas under the Economic Transformation Plan (ETP), and our research, standards development and quality improvement activities will be turned towards addressing industry needs within each of these areas. This will enable us to consolidate our numerous services, change the way we conduct research and develop innovations that are ready for commercialisation. More importantly, they will enable SIRIM to become a self-sustaining entity that will allow us to compete with the best.

In the year under review, SIRIM received an operational budget of RM74.79 million to support the costs related to Statutory Programmes and Strategic Research. Of this, RM41.19 million was spent on emolument and RM33.60 million was spent on general and administrative expenses.

As for the R&D funding, RM12.42 million was spent for 41 on-going projects.

THE ROAD TO INNOVATION EXCELLENCE

One of the pillars of our transformation plan is venturing into strategic collaborations and focusing our energies on developing private and public relationships, which will allow SIRIM to strengthen our strategic partnership with the industry and government and enhance innovation in the country. This will also allow us to discover the in-depth needs of the industry and provide them proper solutions that will contribute to their success.

We have already made progress in this direction. Our Engineering Consultancy Centre (ECC) was instrumental in helping Petroclamp Sdn Bhd become the sole Malaysian manufacturer of PETRONAS' 'Controline Protector' for their drilling processes. ECC's expertise will subsequently see the SIRIM and Petroclamp collaboration being acknowledged as the first manufacturing-based vendor in the oil and gas industry in the country.

On the international stage, the Environmental Technology Research Centre (ETRC) is collaborating with the European Union and an UK-based partner on a pilot carbon footprint labelling programme for local building materials manufacturers. And, to further broaden our range of services, we recently enhanced our calibration services with the acquisition of SIME-SIRIM Technologies Sdn. Bhd., which is also a milestone in our company acquisitions.

As the country's champion in industrial R&D and technology development, we were given the mandate by the government under the National Key Economic Areas (NKEA) to establish and head the Eco Industrial Design Centre (EIDC), a centre of excellence that will propel research, innovations and developments in eco-industrial design and assist in strengthening the National Eco-Labelling Programme, an initiative originally pioneered by SIRIM. Our track record of innovation also saw SIRIM facilitate the approval of two other Government projects, comprising development projects for the National Metrology Laboratory (NML) and a testing laboratory for medical devices.

The year 2012 proved to be a very promising one for SIRIM as we continued to play proactive roles in government-funded research activities by offering innovative solutions in various fields, including advanced material services, mechanisation and automation, design and engineering and biotechnology. The Advanced Material Research Centre (AMREC) continued to implement MOSTI Science Fund projects and MOSTI Techno Fund project during the year. The Advanced Automation and RFID Centre (AARC), which

> WE ALSO CONTINUED TO LEAD THE WAY IN SETTING STANDARDS FOR R&D EXCELLENCE, AND OUR EFFORTS WERE REWARDED WITH A TOTAL OF SIX GOLD MEDALS

delivered a total of 10 projects involving RFID, mechanisation and automation systems and machine and system design, participated and contributed to five Techno Fund projects.

The Design Engineering Section started their involvement in medical technology through a Science Fund project to design below-the-knee prosthesis sockets. Meanwhile, the Industrial Biotechnology Research Centre's (IBRC) participation in the 11 biotechnology projects had contributed five patents to SIRIM's total of 11 patent applications, while one trademark application was filed in 2012.

To enable us to directly reap the fruits of our research and ensure greater business stability in the long run, we also took the first step towards commercialising our technologies through spin-off companies with the setting up of the BioComposite Technology and SIRIM Micro Precision Technology Business Units.

As the national standards development organisation, SIRIM's in-depth understanding of local and international standards saw a total of 442 Malaysian Standards delivered, of which 237 were new standards, 192 revised standards and 13 provisional standards.

We also continued to lead the way in setting standards for R&D excellence, and our efforts were rewarded with a total of six gold medals, one bronze and other special awards and mentions at national-level competitions.

Our achievements were not only limited within the Group itself, but also encompassed subsidiary bodies. SIRIM Training Services introduced three new value-added training modules in 2012 comprising an environmentally-friendly Green 5S certification scheme and two ISO standards for the oil and gas industry and energy management systems, respectively.

Meanwhile, SIRIM QAS International launched two new certification schemes, the Photovoltaic (PV) Module Certification Scheme and the Supply Chain Security Management System Certification Scheme. Another proud moment is the opening of the Labuan office in March 2012 to better facilitate trade for Labuan-based businesses especially in the consignment testing services for electrical appliances, the issuance of certificates of approval for imported iron and steel, and certifying communications and multimedia products.

TRANSFORMING SIRIM

The 2013-2017 Strategic Plan calls for SIRIM to provide industries and end-users total solutions in research and development, testing and certification through our core businesses in Technology Development, Technical Services and Conformity Assessment.

Total solutions means our researchers and scientists will be encouraged to collaborate beyond their areas of expertise and integrate with other areas of speciality knowledge, making them experts in all levels of a product's lifecycle. The transformation will also see all personnel contributing to and enjoying increases in levels of productivity in operating practices, processes and systems. Performance measures and rewards will be balanced and fair, based on clearly defined roles and responsibilities. The management will also develop staff intrapreneurship policies, including equity ownership by

employees to encourage greater accountability. We will also strive for an increase recognition of the SIRIM brand as a technology and quality total solution provider.

Our customers will benefit by having services provided by a one-stop, business-oriented organisation focused on building up their competitiveness and growth. And, to ensure our customers receive even more effective and efficient services, we will strive to increase the number of experts in SIRIM.

SIRIM's strategic plan will position us as the leaders of the nation's technological development and among the key contributors to the creation of a higher-income economy. Once in motion, SIRIM will serve as a catalyst for the growth of technology firms that will contribute towards promoting innovative quality and technological solutions for the industry.

The year will be remembered as SIRIM made a concerted, committed effort to raise our game. Based on the solid foundation we have set in place, I have no doubt that we will continue to advance research, technology, quality and standards on all fronts as we strive to accomplish our transformation plan. I am confident that the best of what SIRIM has to offer, and become, is just around the corner.

Key Highlights of 2012

- Won six gold medals, one bronze and other special awards at national and international technology competitions
- Instrumental in helping Petroclamp Sdn Bhd become the sole Malaysian manufacturer of PETRONAS's 'Controline Protector' for their drilling processes
- Entrusted to lead the nation's Eco Industrial Design Centre
- SIRIM QAS International launched two new certification schemes: Photovoltaic (PV) Module Certification Scheme and Supply Chain Security Management System Certification Scheme
- 442 Malaysian Standards delivered
- Filed 11 patent applications and one trademark application
- Enhanced calibration services with the acquisition of SIME-SIRIM Technologies Sdn. Bhd
- Collaborated with the European Union and an UK-based partner on a pilot carbon footprint labelling programme
- SIRIM QAS International launched Energy Efficiency Laboratory
- SIRIM QAS International launched two new certification schemes: Photovoltaic (PV) Module
- Obtained ISO 9001:2008 certification from SAI Global in five areas - non-destructive testing and welding, intellectual property services, Malaysian Standards development services, casting services and government funded research & development activities in the area of advanced material
- SIRIM QAS International opened its Labuan office

DR. ZAINAL ABIDIN MOHD YUSOF

President and Chief Executive

INNOVATING FOR THE FUTURE

DEVELOPING CLEANER, GREENER PRODUCTS

SPURRING ENVIRONMENTAL CONSERVATION

DELIVERING INNOVATIVE INDUSTRIAL SOLUTIONS

EMPOWERING THE COMMUNITY

PROMOTING INTELLECTUAL PROGRESS

BOOSTING BUSINESS QUALITY AND TECHNOLOGY

For SIRIM R&D division, 2012 was a year marked by milestones that proved the company was on the right track to becoming a self-sustaining institution capable of meeting the growing needs of its stakeholders, businesses and customers. SIRIM researchers won five gold medals, the IFIA Laureate for Excellence Invention, WIPO Award for Best Woman Invention, Best Green Invention Award and the Best Asia Award at ITEX 2012 as well as three gold medals, one silver and two bronze awards at MTE 2012.

INNOVATION FOR THE BETTER

SIRIM's business positioning and reorganisation was implemented following the launch of the Strategic Plan in April 2012, where each core business will be managed as a self-contained entity to provide more flexible, effective and efficient management within the Group. The five-year Strategic Plan saw the unveiling of a new company vision, which sees SIRIM providing total solutions in quality and technology innovations through its core businesses of research and technology innovation, technical services and conformity assessment. These priority areas will revolve around three 'flagships' - Energy & Environment, Medical Technology and Plant & Machinery to provide focus on its activities.

> SIRIM CONTINUED TO ACTIVELY PARTICIPATE IN COMMERCIAL BIOTECHNOLOGY PROJECTS WITH INTERNATIONAL AND LOCAL ORGANISATIONS

DEVELOPING CLEANER,GREENER PRODUCTS

The National Eco-Labelling Programme is one of SIRIM's most important responsibilities. To develop laboratory facilities that will support the programme's development, SIRIM received RM2 million from the total approved budget of RM5 million from the Ministry of Energy, Green Technology and Water (KeTTHA) under PEMANDU's Strategic Reform Initiatives. The facilities will be used not only to conduct the necessary testing required as evidence for environmental claims, but also to carry out R&D to improve the environmental performance of products and processes. A further RM1.65 million was approved to develop an eco-innovation laboratory that will evolve Life Cycle Assessment (LCA) applications and facilitate the use of LCA for eco-design. The LCA lab together with the Eco-innovation lab is expected to spur eco-product development in the country by promoting eco-design and eco-material research.

As of end 2012, SIRIM developed a total of 37 eco-labelling criteria documents covering 15 product categories. Of these, five documents were converted to Malaysian Standards (MS) to bring the total to 14 MS on eco-labelling criteria for various product categories. Another three documents were also prepared for KeTTHA in preparation of a pending initiative by the government to go into green procurement.

In line with the global emphasis on climate change mitigation, SIRIM will also embark on a pilot carbon footprint labelling programme for local building materials manufacturers after its successful bid for a grant under the EU Switch Asia Programme on Sustainable Consumption and Production. The project partners include Carbon Trust of UK, the Federation of Malaysian Manufacturers, the Building Materials Distributors Association of Malaysia and Malaysia Green Building Confederation. The three-year project will end in December 2015.

Meanwhile, SIRIM continued to actively participate in commercial biotechnology projects with international and local organisations for the production of bio-chemicals, bio-materials and bio-fuels from renewable bio-resources that hold great potential value for industries in many sectors including energy, organic chemicals, polymers and health-care products. The company's participation in the 11 commercial biotechnology products in 2011 has thus far resulted in five patents and the commercialisation of one product. Another product is in licensing negotiations.

SPURRING ENVIRONMENTAL CONSERVATION

SIRIM completed its project on continuous solar detoxification for pesticide contaminated ground water in 2012 and filed a patent for the modular mini photocatalytic reactor used to continuously treat water that was developed during the project. The capabilities developed from the project led to SIRIM securing a European FP7 Framework Project, which will see seven partners from the European Union and ASEAN combining their efforts to propagate photocatalytic technology in this part of the world.

> "SIRIM ALSO PROVED ITS GREEN EXPERTISE AND SHOWCASED ENVIRONMENTALLY FRIENDLY PRACTICES IN SOLVING THE INDUSTRIAL WASTE PROBLEM"

SIRIM also proved its green expertise and showcased environmentally friendly practices in solving the industrial waste problem at its branch in Sabah with the building of a Wastewater Treatment Plant (WWTP) that meets the minimal requirements of the Department of Environment. The successful registration of a crystal bioreactor patent utilising technology capable of treating heavy metals in wastewater generated by metal-based factories was another initiative aimed at enhancing SIRIM's green efforts.

In the area of environmental safety studies, the maintenance of GLP labs continues with much vigour despite weak market demand. However, staff competency was not affected as requests for similar tests for non-GLP purposes remained strong. In addition, SIRIM received RM1.598 million in funds from the Ministry of Agriculture (MOA) under the National Key Economic Area (NKEA) initiative for the Herbal Sector to upgrade the Environment Technology Research Centre's (ETRC) laboratory in Shah Alam to comply with GLP requirements for pre-clinical studies, specifically in the area of genotoxicity and dermal toxicity. GLP is currently the only recognised quality assurance system for the Organisation for Economic Co-operation and Development's (OECD) mutual acceptance of data for pre-clinical and environmental safety studies.

Renewable energy is an important area of strategic research and development for SIRIM, and in 2012 the company successfully completed the Renewable Energy Resource Map of Malaysia (MYREMap) project: a valuable resource for the public and business community that maps nine renewable energy resources and their key infrastructure including palm biomass, forest residue and furniture mill wastes, municipal solid waste, solar energy and wind energy. The interactive geospatial map is now available online via www.myremap.my.

SIRIM's competency in environmental geospatial analysis will also be applicable to emerging aspects of environmental conservation such as resource efficiency and micro-pollutants mapping. Indeed, geospatial analysis and chemometrics was used in a new environmental modelling field that resulted in two Science Fund projects for poultry husbandry and river water quality. The knowledge gained from both projects will expand SIRIM's environmental services in 2013 and beyond.

DELIVERING INNOVATIVE INDUSTRIAL SOLUTIONS

In 2012, several new initiatives were introduced to boost SIRIM's packaging and labelling programmes including the establishment of a comprehensive network to market packaging-related activities via SIRIM state branches, employing experienced design staff to enhance expertise and forwarding more proposals to relevant government agencies. Despite having a large number of its packaging design training courses moved to 2013, SIRIM was appointed by the Ministry of Youth and Sports (KBS), MARA and MOA to undertake training programmes for entrepreneurs. Eight training programmes for KBS on packaging and labelling, corporate identity and branding were carried out in 2012, as well as other courses for MOSTI and MOA.

A total of 150 entrepreneurs took advantage of SIRIM's packaging and labelling and consultancy services last year, including those from government agencies such as the Malaysian Agriculture Research and Development Institute (MARDI), the Federal Land Development Authority (FELDA) and MITI. SIRIM also secured four 3D projects to help small and medium businesses improve the appearance of their products in 2012.

SIRIM's advanced automation and RFID engineers continued to play an important role in the company by offering innovative mechanisation and automation solutions to government and industry sectors as well as designing and developing various machines and systems for organisations. The company's research teams delivered three RFID systems applications, one mechanisation and automation system and six machine and system design projects in 2012.

SIRIM engineers undertook R&D activities through the MOSTI R&D Fund and implemented a Science Fund project to design below-the-knee prosthesis sockets using CAD/CAE, optical digitising and rapid prototyping technologies. Researchers also participated in a Techno Fund project on developing a soft-tracked multi-terrain harvester for oil palm fresh fruit bunches. In addition, the Advanced Material Research Centre (AMREC) was granted two MOSTI Science Fund projects in 2012 and received more than 1,000 requests for technical services, testing services for ceramic materials as well as other testing services using high-end equipment.

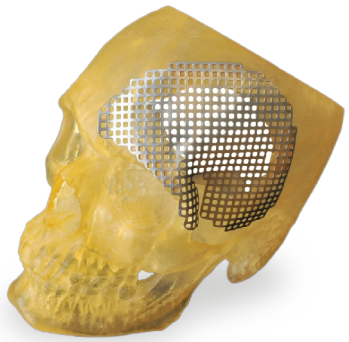
SIRIM also focused on strategic government-funded projects critical to developing the nation's industries and technological know-how, including projects on rapid product development,

computer-aided surgery and biomedical modelling. A total of 138 organisations took advantage of SIRIM's services such as rapid prototyping, rapid tooling, bio-modelling, 3D optical digitising and CAD modelling. SIRIM also organised two seminars on engineering design and rapid prototyping technology.

Under the country's Economic Transformation Plan's Entry Point Projects (EPP), SIRIM identified and prepared working papers on industries that require the use of bioreactors for their manufacturing processes and cooperated with local companies to commercialise a bioplastic manufacturing project. It has filed an application for a patent centred on a mechanical device that improves the efficiency of a bioreactor's fermentation process. Another EPP identified by SIRIM as having commercial value was the design and construction of a biogas plant utilising palm oil mill effluent (POME) as the source.

SIRIM moved a step closer to being directly involved with the oil and gas industry when a proposal to design a 'Y-T Joint' 20 inches in diameter for the MLNG gas plant in Bintulu was accepted. This project will involve various sections in SIRIM, including AMREC and IARC. In addition, SIRIM engineers participated and contributed to five Techno Fund projects and lent their expertise in machine design, control and automation in the development of five prototypes and Self-Constructed Asset (SCA) projects, including the design and development of a SCADA and control system for the bioplastic pilot plant and the development of a filament winding machine.

Meanwhile, SIRIM's automotive engineers provided consultancy and advisory services to over 100 technical enquiries and issued more than 50 evaluation reports in 2012, comprising testing contracts for automotive components and testing services for automotive engineering and materials. SIRIM was also consulted on industrial training programmes by Proton and UMW Toyota, identified strategic new technology and testing services, participated in statutory and technical advisory and extension programmes for local automotive players and undertook various CAE-based engineering simulation and design and development projects for automotive vendors.



EMPOWERING THE COMMUNITY

In providing communities and industries with technologically-advanced tools and processes, SIRIM continued to help rural and urban areas upgrade and enhance their livelihoods and surrounding environment. The company has begun embarking on its own independent community projects with the implementation of a solar aeration system for the community at Kampong Sabun in Simunjan, Sarawak. In most cases, however, SIRIM's community-empowering efforts are undertaken in collaboration with various government organisations.

One of these efforts was the design and construction of a modern sago processing plant that produces sago products and by-products that utilise starch as a source of income and as a food staple. A water and waste treatment plant for a food factory was also proposed to the Ministry of Finance (MOF) and Perbadanan Kemajuan Iktisad Negeri Kelantan. In addition, SIRIM provided consultancy services in the development of a ketupat factory for the FELDA cooperative in Sungai Tengi and organised training sessions and seminars for companies involved in the Ministry of Agriculture's Good Manufacturing Practices (GMP) and halal fields.

SIRIM undertook the implementation of the government-funded TapMOSTI @Community and the MARA MASTEC 4 programme for detergent training while continuing to work on the MITI Groom Big herbal cosmetics programme and the Department of Fisheries Seaweed Project, which aims to develop skincare products using seaweed extract as a functional ingredient. The Groom Big programme has also been well received by other government agencies, and SIRIM has embarked on collaborations with the Eastern Corridor Economic Region Development Council (ECER), MARA and the Sarawak Chief Minister's office.

In 2012, SIRIM also launched a pilot quality program for SMEs. The Quality Enhancement Scheme (Skim Peningkatan Kualiti – SPK) seeks to recognise micro and small enterprises (MSE) that meet required quality standards, and in 2012 four MSEs were awarded the SPK logo. SIRIM's collaboration with Malaysia's largest microcredit organisation, Amanah Ikhtiar Malaysia (AIM), also began to bear fruit as it rolled out the Sahabat AIM productivity and quality improvement pilot programme for 10 rural micro enterprises. The programme is expected to be adopted for more SMEs under Sahabat AIM's rural community transformation agenda.

SIRIM CONTINUED TO HELP RURAL AND URBAN AREAS UPGRADE AND ENHANCE THEIR LIVELIHOODS AND SURROUNDING ENVIRONMENT.

The younger generation also benefitted from SIRIM's socio-economic projects. A total of 200 secondary school students from 30 schools in Sarawak, Johor and Negeri Sembilan attended Roboclinic sessions taught using SIRIM's own Robokit product. A Roboclinic camp and competition were also held in Johor, Sabah, Negeri Sembilan, Sarawak and Kedah in conjunction with the National Year of Science and Innovation Movement 2012. To cap its promotion of robotics, SIRIM signed an MOU with UiTM Terengganu to develop a training curriculum and programme based on the Robokit product.

To enhance the employability of Polytechnic graduates, SIRIM, the Department of Polytechnic Education and the Ministry of Higher Education (MOHE) signed an MoU with the American Welding Society (AWS) to implement a Welding Examination course for Mechanical Engineering students from polytechnics in Malaysia. Held in July, the course saw the participation of 270 students from 13 polytechnics. Those who passed are now globally recognised as certified welders.

To enhance the employability of Polytechnic graduates, SIRIM, the Department of Polytechnic Education and the Ministry of Higher Education (MOHE) signed a MoU with the American Welding Society (AWS) to implement a Welding Examination course for Mechanical SIRIM continued to offer value-added technical technology transfer and information dissemination programmes in the form of seven courses for the development of business web pages to entrepreneurs under the Ministry of International Trade and Industry's (MITI) Groom Big programme and the Ministry of Science, Technology and Innovation's (MOSTI) Innospace project. An internet portal, www.myiks.com was developed as a one-stop centre for SME entrepreneurs who attended SIRIM's web design courses to promote and sell their products and services.

SIRIM continued to provide training to future trainers, technopreneurs and the community in the areas of ceramics, plastics and polymer composites under various programmes such as the GMI-KKTM, MID Sarawak, MID Sabah, and TAPMOSTI. Via AMREC, SIRIM also organised technological conferences, workshops and seminars focusing on various areas of advanced materials such as a TEM, sol-gel, nano characterisation and microscopy.

SIRIM also took part in 10 state and national exhibitions to showcase and provide awareness of its automation products and

solutions to industries, as well as participating in the 21st Vietnam International Industrial Fair and the 4th FAJR Regional Innovation and Inventions Exhibition 2012 in Iran.

PROMOTING INTELLECTUAL PROGRESS

The Intellectual Property Centre (IPC) under the Standards and Quality Division provides a comprehensive range of intellectual property services covering IP Search services, IP Agency services, IP Training services and IP Consulting services. In 2012, the IPC conducted 115 searches covering patents, trade marks and industrial designs, drafted 15 patent specifications covering various fields of technology and filed 165 patent applications, 140 trademark applications and 21 industrial design applications at the Malaysian Intellectual Property Office (MyIPO).

The SIRIM IP Policy, which came into force in February 2011, continued to be implemented to encourage SIRIM researchers to produce more inventions. Incentive awards were disbursed to SIRIM researchers for disclosing their inventions and for patents granted locally and overseas. Overall, SIRIM filed a total of 11 patent applications and one trademark application in 2012.

SIRIM served as the IP Secretariat for Government-funded projects for the eighth year running, ensuring the intellectual property needs of such clients as the Malaysian Agriculture Research and Development Institute (MARDI), the Ministry of Health (MOH), the Small and Medium Enterprises Corporation Malaysia (SME Corp) and Universiti Putra Malaysia (UPM) were well taken care of. SIRIM also improved both staff and public awareness on intellectual property and on the use of patent information in research work through IP awareness talks at their branch offices throughout the year.

Moving forward, the IPC will be merged with the Techno-Economy and Commercialisation Centre to form a new Innovation and Technology Commercialisation Services Centre (ITCSC) in an effort to identify niche markets and gain more local and international anchor clients. This move is expected to grow SIRIM's IP portfolio and put the company at the forefront of intellectual property services.

BOOSTING BUSINESS QUALITY AND TECHNOLOGY

In facing global business challenges and competition, there is a call for local companies to not only upgrade their technological skills and capabilities, but also their quality and standards management activities. Keeping Malaysian companies on the cutting edge of competitiveness has become a SIRIM hallmark, and this proved no different in 2012.

In order to better serve the industry, SIRIM sought and obtained ISO 9001:2008 certification in five areas - training in non-destructive testing and welding, intellectual property services, Malaysian Standards development services, casting services and government funded research & development activities in the area of advanced material. This third party certification by SAI Global, Australia, has improved the quality and delivery of our services, in line with the rapid growth of the industry. The scope of certification is expected to be expanded gradually to other activities in the coming years.

SIRIM's continuous quest to provide world-renowned quality tools and best practices to companies looking to boost their standards led to the introduction of three new training modules in 2012 that centre on specific values and perspectives. The training modules comprise SIRIM's sustainability-focused Green 5S certification scheme to upgrade environmentally friendly practices, ISO 29001 for the oil and gas industry and ISO 50001, which helps organisations use energy more efficiently through the development of an energy management system (EMS).

SIRIM's Standards Research and Management Centre (SRMC) developed and delivered a total of 442 Malaysian Standards (MS) to the Department of Standards Malaysia (STANDARDS MALAYSIA), the national standards body for Malaysia, out of which 237 were new standards, 192 were revised standards and 13 are provisional standards. SIRIM also increased its sale of standards in 2012, selling 18,876 Malaysian Standards and 1,090 international and foreign standards to industries, government agencies, institutions of higher learning, and members of the public. More than 300 companies and associations enjoyed the benefits of becoming part of the SIRIM Library membership programme.

The national enquiry point for WTO/TBT managed by SIRIM also served the government and industry sectors by circulating more than 1,360 notifications from other WTO member economies. More than 420 requests for foreign notifications were received from local industries, which proved that these industries reap numerous benefits by being informed as early as possible on changes of regulations and standards in other foreign countries. Meanwhile, six Malaysian notifications, including those on construction materials, pharmaceutical products, feed and feed additives and food and food products, were managed and forwarded to WTO.

SIRIM also organised 10 standards promotion seminars ranging from areas such as edible bird nests, cement and road tunnelling to

MORE THAN 420 REQUESTS FOR FOREIGN NOTIFICATIONS WERE RECEIVED FROM LOCAL INDUSTRIES, WHICH PROVED THAT THESE INDUSTRIES REAP NUMEROUS BENEFITS...

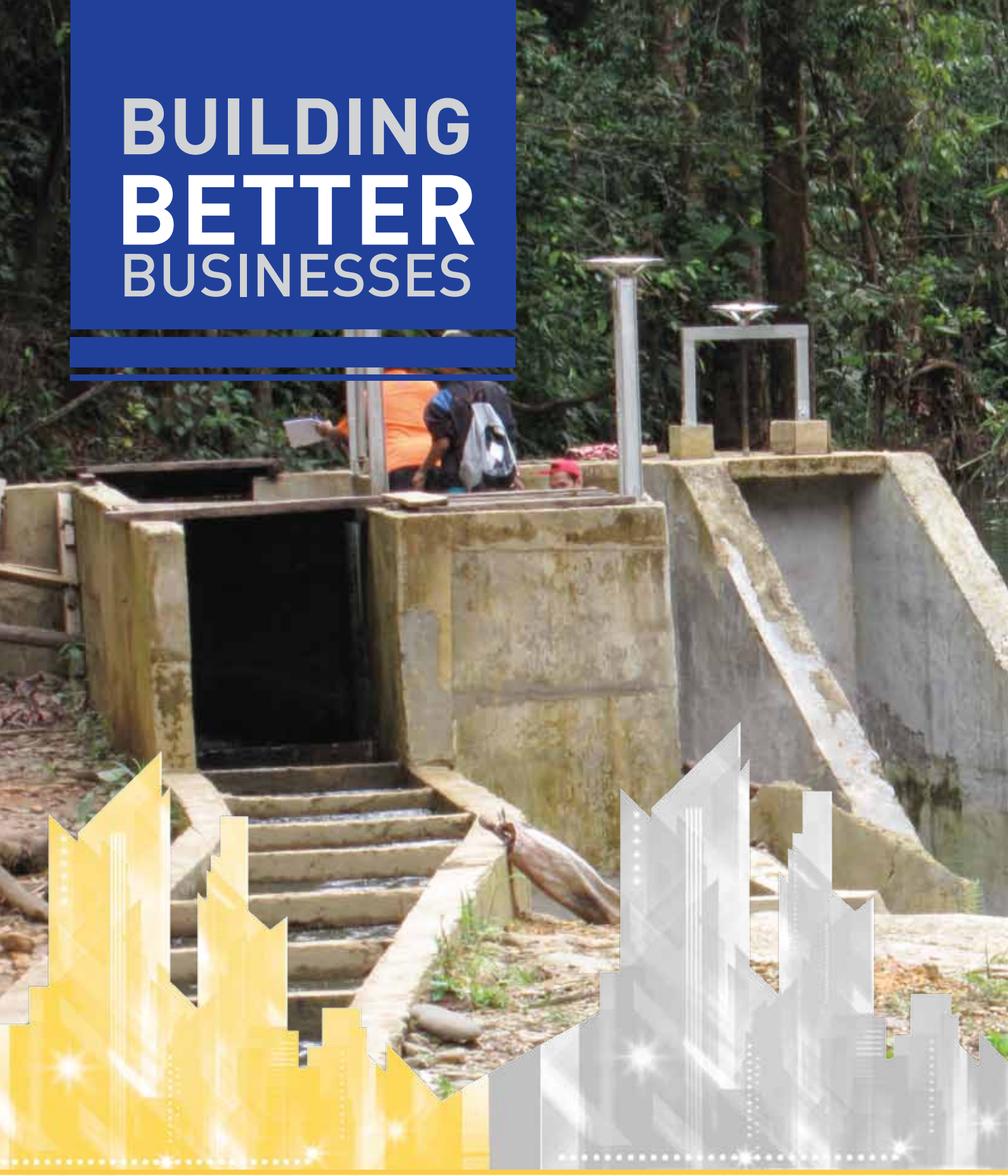
road furniture and energy management to raise awareness of Malaysian Standards among stakeholders from the government and industry sectors. A total of 12 national forums and workshops for LEDs, electric bicycles, semiconductor devices, railway applications and electoral bodies were also organised. In addition, following amendments to Japan's Chemical Substance Control Law, the country's Overseas Human Resources and Industry Development Association (HIDA) approached SIRIM to co-host two seminars to explain their Chemical Risk Assessment Method and regulatory compliance required by Malaysian businesses intending to export to Japan.

The National Metrology Laboratory (NML-SIRIM) developed 10 new measurement capabilities in 2012 in the fields of electrical, mechanical, temperature and chemistry. NML-SIRIM also participated in several international comparisons to ensure the harmonisation of measurement standards with its international counterparts in areas such as hydraulic gauge pressure, universal time coordination, magnetic flux density and power.

In 2012, NML-SIRIM conducted several calibration and measurement training sessions, seminars and workshops for government agencies, industries and individuals. It also hosted international visitors from the International Cooperation Department and the Directorate for Standards, Metrology and Quality of Vietnam, a study tour by officials from the managing director of TUBITAK UME of Turkey as well as local visitors from government agencies, Industry and universities.

In continuing to serve as the National Measurements Standards Laboratory (NMLS) under the National Measurement Act (NMSA) 2007 and Custodian of Weights and Measures (Amendment) Act 2007, NML-SIRIM will focus on upgrading and intensifying its measurement and metrology activities and capabilities in 2013, including making inroads into new areas and cooperating with other National Metrology Institutes to simultaneously disseminate and promote measurement parameters and measurement technology.

BUILDING BETTER BUSINESSES



STRENGTHENING INTERNATIONAL TIES

SOWING THE SEEDS OF EXCELLENCE

THE CUTTING EDGE OF DESIGN

BUILDING BETTER BUSINESSES

As SIRIM meets its challenge to transform itself to grow and lead the nation's technology and quality developments, there is a need to focus on setting a strong foundation before the Group makes its new vision a reality. The company's transformation mission began to take shape in 2012 as it continued to showcase its excellence in R&D in 2012 and further cemented the Group's reputation as the go-to organisation for quality and technology.

The ball was set rolling with the acquisition of SIME-SIRIM Technologies Sdn. Bhd., a joint venture company that marks a significant milestone in the history of SIRIM with regards to company acquisitions and positions the Group to make inroads in providing future calibration services. SIRIM's new strategy is also exemplified by its collaboration with Petroclamp Sdn Bhd to develop a 'Controline Protector' to shield data and communication cables during drilling processes. The successful collaboration, supported by the Ministry of International Trade and Industry (MITI) and PETRONAS, led to SIRIM and Petroclamp becoming the sole local manufacturer of the product in Malaysia. The collaboration is on its way to being named the first manufacturing-based vendor in the oil and gas industry in the country.

> "SIRIM ALSO VENTURED INTO SPIN-OFF COMPANIES TO COMMERCIALISE ITS TECHNOLOGIES..."

SIRIM also ventured into spin-off companies to commercialise its technologies, with the first step being the establishment of the BioComposite Technology and SIRIM Micro Precision Technology Business Units (TBU). As of now, the BioComposite TBU has completed orders for industrial customers and was granted a RM1.7 million venture fund grant to establish a new wood polymer composite line, while the SIRIM Micro Precision TBU accomplished its business objective of producing two units of a commercial-ready

8-Axis tool and cutter grinders and is actively undertaking market development towards commercial production.

Ten techno-economic feasibility studies were conducted in 2012 covering technical viability, market feasibility and financial analysis on bio-fuel, wound management products, implants, solar thermal applications and cutting tool inserts. Two technologies – palm-based fuel additives and soil improvers – were promoted through the South South-GATE (SS-GATE). SIRIM also conducted two foresight studies on Energy Storage and Automotive Technology as well as embarked on the preparation of product roadmaps in the areas of medical devices, RFID and bioreactors.

SIRIM continued to play active roles in contributing to the nation's technology development through their involvement in numerous government activities, including participating in PEMANDU's Electronic and Electrical (E&E) 2.0 workshop and several other workshops on Technology Foresights for RFID, industry dialogues and providing inputs as curriculum and academic advisors to various universities and training institutions. PEMANDU has also asked SIRIM to lead a RM5 million National Key Economic Area (NKEA) project to develop an Industrial Design Centre of Excellence (IDCoE). The Centre will play a key role in supplying industrial design and rapid prototyping technology services to local SMEs, specifically those in the electronics and electric sectors.

Meanwhile, SIRIM's Security Printing Centre (SPRINTEC) pushed the envelope in keeping with the times by introducing advanced safety features such as optically variable devices (OVDs) and security ink in their services.

STRENGTHENING INTERNATIONAL TIES

As a globally-recognised research and standards development organisation, SIRIM plays a key role in sharing its expertise to develop international standards, as well as its quality and technology developments and advancements, by participating and collaborating in various standardisation programmes and activities the world over.

The World Association of Industrial and Technological Research Organizations (WAITRO) had a full schedule in 2012, with its 21st biennial congress and general assembly being the highlight of its calendar. Held in New Delhi from November 8-9, the congress, themed 'Technological Innovations for All-Inclusive Growth' focused on areas such as renewable energy, the environment, processing and food safety and security. SIRIM President and Chief Executive Dr Zainal Abidin Mohd Yusof was a guest speaker at the event.

Other key WAITRO events included the WAITRO-ISESCO Senior Management Programme on Managing Research Technological Organizations held in Bangladesh in July and the International Seminar on Enhancing Grassroots Innovation Competitiveness for Poverty Alleviation, held mid-October in Indonesia.

In June, WAITRO organisation heads and senior officials also attended the SIRIM-organised Senior Management Programme on Managing Research Technological Organizations, which aims to help participants strengthen their research technical organisation (RTO) management skills via presentations, case studies, development activity results and collaboration opportunities. Since the start of the Programme in 2003, SIRIM has trained over 500 participants from over 60 countries.

WAITRO and SIRIM were also among the organisations and consortiums that participated in two workshops organised by the European

Commission (EU) in Kenya in November. The first comprised a biowaste workshop that focused on turning biowaste into sustainable products while the second was a project proposal development workshop on high-value plant-based products. SIRIM was also among members of a consortium formed and led by the WAITRO Secretariat and the Danish Technological Institute (DTI) for an EU Framework 7 (EU FP7) project proposal workshop in Indonesia that looked at combating pollution in ASEAN countries using next-generation solar-based photocatalytic remediation systems.

SIRIM was also selected by the screening committee of the 4th International Fajr Innovation and Inventions Exhibition in Iran to showcase its Green Circuit Breaker, which led to discussions with potential business partners and customers for the product.

SIRIM made its presence felt on the international standardisation stage via its participation in 169 international technical committees as a participating member and 201 committees as an observer member, resulting in 2,385 votes for ISO and IEC draft international standards in a total of 370 technical committees. SIRIM also hosted four international meetings involving standards for suspension systems, freight containers, motorcycles and biometric applications that saw the participation of 119 delegates from 29 countries.

The Industrial Biotechnology Research Centre (IBRC) collaborated with its international partners in undertaking research in biomass utilisation as part of an 18-member consortium comprising European and African research organisations, which won a European Union bid to undertake a project on biowaste utilisation. The IBRC also teamed up with the Korea Research Institute of Bioscience & Biotechnology (KRIBB) and GenDocs of South Korea as part of a team undertaking research on the utilisation of palm oil biomass sponsored by the Korean government.

SOWING THE SEEDS OF EXCELLENCE

The Group's total workforce numbered 2,126 as of 31 December 2012.

In positioning SIRIM staff to be among the forefront of the nation's quality and technology innovators, the company spent more than RM0.8 million on staff training and development programmes in 2012. SIRIM also engaged eight local and overseas experts in diverse fields as solar cell, finite element analysis software and gas metrology to expedite the Group's technology transfer process. Staff were also sent for attachment programmes at the Technical Centre for Mechanical Industry (CETIM) in France, the Yokohama National University in Japan and Packaging & Technology Integrated Solutions in the United Kingdom, among others.

SIRIM organised 125 Development Programmes for over 3,100 staff last year, while 448 staff were selected to attend 315 Functional Training Programmes related to SIRIM's businesses. The company also collaborated with the Malaysian Technology Development Corporation (MTDC) to conduct an interactive Technology Commercialisation workshop for SIRIM researchers to provide them insights on the business aspects of commercialising technologies.

THE CUTTING EDGE OF DESIGN

It proved yet another fruitful year for the Malaysian Design Council (MDC), which not only ensured local product designers received recognition for their ideas and designs, but also increased awareness on how innovative design can benefit numerous sectors.

The Malaysia Good Design Mark (MGDM) initiative, which continues strongly after 16 years, saw 73 qualified product submissions received from 41 companies while the 17th Malaysia Design Competition, held with the theme "Modern Agriculture" received a total of 175 ideas and designs from schools, colleges and professionals.

The MDC also participated in the National Year of Science and Innovation Movement 2012 initiative via its Design Innovation Exploration (DIX) outreach programme, which cultivates creative and innovative thinking among the young. In reaching out to other age groups and strengthening its reputation as a leading designs and ideas promoter, the MDC also organised discussions, seminars and workshops throughout the year and received visitors from local and international schools, universities and organisations.

SUBSIDIARIES

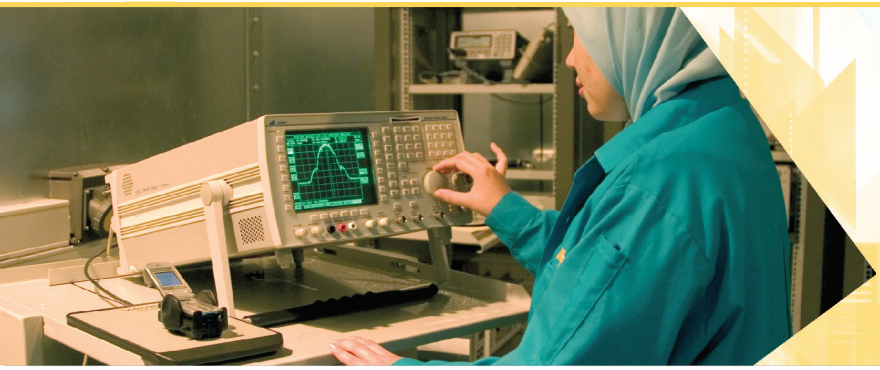
SIRIM QAS INTERNATIONAL SDN. BHD.

SIRIM TRAINING SERVICES SDN. BHD.

SIRIM STANDARDS TECHNOLOGY SDN. BHD.

(formerly known as SIME-SIRIM Technology Sdn. Bhd.)

NATIONAL PRECISION TOOLING SDN. BHD.



SIRIM QAS International Sdn. Bhd.

In 2012, SIRIM QAS International saw an increase in the uptake for its certification services in line with growing global concerns on sustainable development and the emerging trend of Malaysian organisations pursuing sustainability-related certifications. These include ISO 14001 environmental management system certification, Clean Development Mechanism (CDM) project validation, certification and verification, Roundtable on Sustainable Palm Oil (RSPO) and RSPO supply chain certifications and forest management certifications.

ISO 9001 quality management system certification, however, remained as SIRIM QAS International's most popular offering as conventional certification schemes continued to play a significant role in facilitating global trade and promoting good business practices.

For the last 40 years, consumers have come to rely on the Malaysian Standards (MS) mark to help make informed purchasing decisions on product safety and quality. The MS mark, which is only approved for use on products certified by SIRIM QAS International's Product Certification Scheme, provides an easily-identifiable mechanism to demonstrate compliance to standards. As Malaysia becomes more developed and industry needs change, however, there is a need for SIRIM QAS International to stay abreast with the times. The nation's premier certification, inspection and testing body did so by introducing two new certification schemes in the form of the Photovoltaic (PV) Module Certification Scheme and the Supply Chain Security Management System Certification Scheme.

The Photovoltaic (PV) Module Certification Scheme provides third party assurance on the reliability and safety of Photovoltaic modules to support the wide application and usage of PV systems in the field. The scope of certification covers crystalline silicon terrestrial PV modules and thin-film terrestrial PV modules designed for terrestrial PV power generation systems. The Supply Chain Security Management System Certification Scheme is based on the ISO 28000: 2007 "Specification for security management systems for the supply chain" standard and provides the framework for a security management system aimed at improving the overall security of supply chains.

In responding to government initiatives to improve energy efficiency, SIRIM QAS International launched their Energy Efficiency laboratory in May 2012. The new laboratory is used to test the energy efficiency of electrical products and appliances identified under the Energy Commission's STAR labelling programme such as lamps/lighting, refrigerators and air conditioners. In November, SIRIM QAS International launched their Fire Protection laboratory to provide comprehensive fire-resistance and performance tests for active fire protection systems ranging from doorsets to extinguishers.

In March 2012, SIRIM QAS International opened their new office in Labuan to better facilitate trade. Apart from providing support services for applications from Labuan-based importers who require consignment testing services for electrical appliances, the office also performs inspection for the issuance of certificate of approval for imported iron and steel as well as certification of communications and multimedia products.

Moving forward, SIRIM QAS International will continue to focus on facilitating market accessibility for its customers and enhance consumer confidence in their products and services through the provision of professional and seamless services.

SIRIM Training Services Sdn. Bhd.

SIRIM Training Services' merger with the Quality and Enterprise Management Centre (QEMC) in early 2012 resulted in a significant increase in the number of training sessions conducted compared to 2011. SIRIM Training successfully organised 815 training sessions and courses attended by 11,121 participants from 1,758 organisations.

In keeping with SIRIM Training's mission to provide a wide range of training and consultancy services to consultancy services, the company improved the organisational competitiveness of 23 organisations via various certifications and accreditations, including ISO 9001, ISO 17025, ISO 17025, MS 1900 and TS 16949. From the 23 organisations, six were awarded SIRIM's new Green 5S certification and one its new ISO 50001, while one was TQM certified based on SIRIM's own unique Total Quality Fast Track Model (TQFTM), which integrates key activities in four stages to enable continuous improvements in a business.

SIRIM Training also implemented technology-based training programmes such as its Certificate Programme on API, Certified Welding Engineer-AWS and Certificate Programme on NDT to promote and enhance industry quality. The company, which secured 31 new consultation projects and collaboration programmes in 2012, continued its collaboration programme with MITI to implement the Vendor Development Programme for vendors under Telekom Malaysia, Proton, PETRONAS and Tenaga Nasional Berhad.

SIRIM Standards Technology Sdn. Bhd.
(formerly known as SIME-SIRIM Technology Sdn. Bhd.)

Despite a slow-expanding market which affected a majority of SIME-SIRIM Technologies' (SST) key multinational customers, the Group's newest subsidiary's turnover and profit achieved double-digit growth compared to the previous year.

SST increased its growth in the oil and gas fabrication sector with its facilities at Pasir Gudang making major inroads towards becoming a leading fabricator in the field of instrument calibration, heat treatment and instrument verification. The company also secured sales from top players and vendors in the automotive sector, which is expected to grow further in the coming years.

The company also started collaborating with an international instrument manufacturer under its customer service contract package, which resulted in negotiations for a joint venture company. This collaboration will lift SST's capabilities and services towards Original Equipment Manufacturer (OEM) levels and provide the company greater industry recognition.

Moving forward, SST will look at setting up a joint-venture company and service collaboration with a bio-medical calibration laboratory to cement its position as the leading commercial accredited calibration service provider in the country.

National Precision Tooling Sdn. Bhd.

Established in 2012, National Precision Tooling Sdn Bhd (NPT) is a special-purpose vehicle mandated by the government to be the lead collaborator in developing the Bumiputera automotive tools, dies and moulds sector. The company's main objectives are to expedite the capability and capacity development and enhancement of the Bumiputera TDM industry clusters and increase their participation in the TDM business, specifically with respect to opportunities presented by the local automotive manufacturing sector for import substitution, as well as export potential.

The main objectives of the Project are targeted to be achieved through the following development programs:

- Acquisition of high-technology machinery and equipment to be placed at and rented to Bumiputera TDM companies to be utilised in their TDM manufacturing activities;
- Engagement of experts under Technical Assistance Agreement with foreign technology providers, to provide training, guidance and consultation to Bumiputera TDM companies; and
- Organising and conducting human capital development (HCD) programs in the forms of overseas and local training for staff of Bumiputera TDM companies.

During the year, NPT approved eight proposals from Bumiputera automotive TDM companies for the acquisition of high technology machinery and equipment worth RM8,803,880 comprising of nine seats of CAD/CAM Systems, three CNC Machining Centres, one CNC Electrical Discharge Machine, one Direct Computer Control Coordinate Measuring Machine and one Mechanical Try Press. The machinery and equipment were placed at and rented to six Bumiputera TDM companies.

The year also saw the implementation of two Technical Assistance-Experts Attachment Programs involving the placement of three experts in the field of plastic injection mould technology at three beneficiary companies, and one expert in the field of assembly jigs and fixtures technology at one beneficiary company.

For 2013, the Company is expected to evaluate and approve new development programs worth an estimated RM28.5 million. This is expected to further enhance their capabilities and capacities and increase their participation in the TDM business, in line with the main objectives of the Project.

CALENDAR OF EVENTS

9 January 2012

2012 ASSEMBLY

At the first assembly for 2012, Acting President and Chief Executive of SIRIM Berhad, Dr Zainal Abidin Mohd Yusof presented the financial performance in 2011 for SIRIM and its subsidiaries. At the assembly, he also launched the KM Portal, a new information platform for the sharing of knowledge among employees. SIRIM Berhad's Auditorium was also renamed to Auditorium Dato' Yahaya Ahmad, in honour of the late President and Chief Executive of SIRIM Berhad.

1 February 2012

DR. ZAINAL ABIDIN'S APPOINTMENT AS THE PRESIDENT AND CHIEF EXECUTIVE

Biotechnology expert, Dr Zainal Abidin Mohd Yusof was appointed President and Chief Executive of SIRIM Berhad for a period of three years, with immediate effect from February 1, 2012 to 31 January 2015.

He previously held the post of Vice President of Research and Technology Development Division and was also the Acting President since August 2011 after the demise of Allahyarham Dato' Ir. Yahaya Ahmad.

Dr Zainal Abidin, born and bred in Jelebu, Negeri Sembilan, graduated with a Doctor of Philosophy in the field of Microbiology from Universiti Kebangsaan Malaysia; Bachelor degree in Microbiology from Louisiana State University, USA, and Bachelor of Science in the same field at Indiana University, USA.

He began his career in SIRIM Berhad as a Research Officer in 1981, and has held office as the Senior General Manager of the Environment and Bioprocess Technology Centre (2005) until he was appointed as the Vice President of Research and Technology Development Division (2006 until present).

15 February 2012

ENTREPRENEURS' DEVELOPMENT PROGRAM

The program organised by SIRIM Berhad brought together the Ministry of International Trade and Industry (MITI) with representatives from government agencies such as the Ministry of Rural and Regional Development, Council of Trust for Indigenous People (MARA), Ministry of Domestic Trade, Cooperative and Consumerism and MOSTI. The joint program between SIRIM and MITI was organised to enhance cooperation between these agencies, in which, a briefing was presented by Dato' Abdul Ghafar Musa, Senior Director, MITI's Entrepreneurship Development Division and Dr Zainal Abidin Mohd Yusof, Acting President and Chief Executive of SIRIM Berhad.

15 March 2012

MEMORANDUM OF UNDERSTANDING (MOU) BETWEEN SIRIM AND DEPARTMENT OF POLYTECHNIC EDUCATION

Department of Polytechnic Education and SIRIM Berhad signed a memorandum of understanding (MoU) to establish industrial cooperation and collaboration in education and technical training. The MoU was signed by President and Chief Executive of SIRIM Berhad, Dr. Zainal Abidin Mohd Yusof and Director-General of the Department of Polytechnic Education, Major (K) Haji Md. Noor Yusof. Also present were Nor Rashid Ismail, SIRIM's Vice President of the Corporate Division and Ahmad Faizal Ismail, General Manager of SIRIM Johor.

9 April 2012

SOFT LAUNCH OF RENEWABLE ENERGY RESOURCE MAP (REMap)

SIRIM's Renewable Energy Resource Map (REMap), an interactive database to track and review renewable energy (RE) in the country was launched by Tan Sri Dato' Haji Muhyiddin Mohd. Yassin, Deputy Prime Minister of Malaysia in conjunction with the Year of Science and Innovation Movement 2012 (SGI2012). REMap not only hosts the tracking of RE sources such as biomass, wind, solar, ocean and hydro power but also information on roads, rail, and river networks also that are displayed in one platform. Meanwhile, SGI2012 organised by MOSTI is a continuation of the "Malaysia Innovative 2010" to raise awareness and foster a culture of science and innovation among Malaysians towards wealth creation, knowledge creation and the people's wellbeing.

15 May 2012

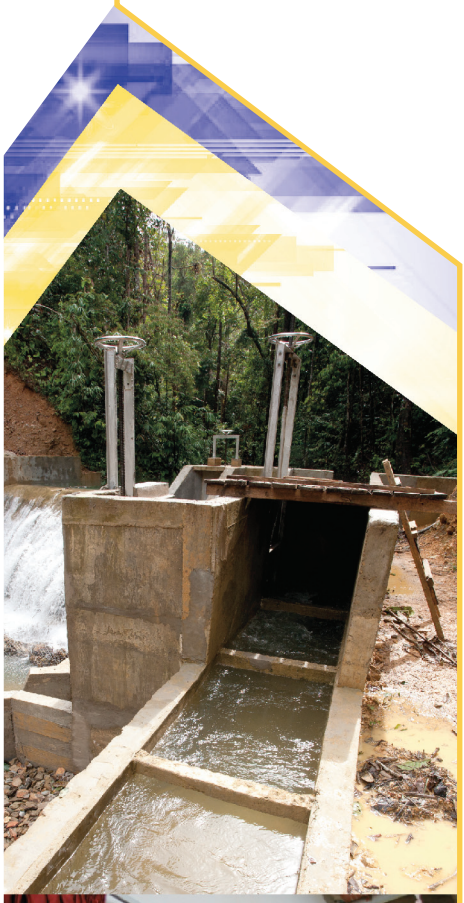
OFFICIAL OPENING OF SIRIM QAS INTERNATIONAL SDN BHD'S ENERGY EFFICIENCY LABORATORY

The Energy Efficiency Laboratory was officially opened by Dato' Sri Peter Chin Fah Kui, Minister of Energy, Green Technology and Water (KeTTHA) in Jalan Lada Sulah, Section 16, Shah Alam. About 100 participants from the industry and suppliers of electrical goods, representatives from the government agencies and the media attended the ceremony.

8 June 2012

HAND-OVER OF MICRO-HYDRO PROJECT IN KG. SRI STAMANG

SIRIM's micro-hydro project was handed over to the community of Sunok Longhouse by Datuk Hj Fadillah Yusof, Deputy Minister of Science, Technology and Innovation. Also present was Dr Zainal Abidin Mohd Yusof, President and Chief Executive of SIRIM Berhad. The project worth about RM1 million is funded under the Community Innovation Fund under the Ministry of Science, Technology and Innovation.



30 June 2012

PLANTING OF HERBAL PLANTS IN SIRIM

The program that was carried out at SIRIM's Herbal Garden was aimed to raise awareness amongst employees of the nutritional and health benefits of herbal plants. Among the herbal trees planted were peppermint, pennywort, parsley and laksa leaves.

16 July 2012

MOU BETWEEN SIRIM AND SHAH ALAM CITY COUNCIL

SIRIM Training Services Sdn Bhd (SIRIM Training) a subsidiary of SIRIM Berhad has signed a Memorandum of Understanding (MoU) with the Shah Alam City Council (MBSA) for the implementation of quality improvement programs based on the model of 'Total Quality Fast Track' (TQFTM) ahead of the recognition of SIRIM's Total Quality Management (TQM) in November 2012. The MoU was signed by Dr Zainal Abidin Mohd Yusof, President and Chief Executive of SIRIM Berhad and also SIRIM Training Services Chairman while MBSA was represented by Dato' Hj Mohd Jaafar Hj Mohd Atan, Shah Alam Mayor.

8-9 August 2012

ISO 9001: 2008 RECOGNITION FOR SIRIM TRAINING SERVICES SDN. BHD.

SIRIM Training Services Sdn Bhd (SIRIM Training) received the recognition of ISO 9001:2008 (Quality Management System) from SAI Global Indonesia (SAI Global). SAI Global, with its headquarters in Australia, is one of the international professional services and quality assurance organisations. Certification audit was for "Provision of In-house and Public Training".

7 September 2012

VISIT FROM IRAMOT DELEGATION

The visit by the Iranian Association for Management of Technology (IRAMOT) was headed by the President of IRAMOT's Technology Management, Dr. Seyed Habibolah Tabatabaein. It aimed to open up new opportunities especially in science and technology between IRAMOT and SIRIM Berhad, in addition to strike partnership in skills and proficiency towards the improvement and development of science and technology.

12 October 2012

FRIENDLY GAME BETWEEN SIRIM AND TOYOTA

In the friendly game between SIRIM and Toyota, SIRIM won two games and drawing one. A total of seven matches were held in football, netball, volleyball, table tennis, carom, sepak takraw and badminton. The games were held in SIRIM and officiated by Nor Rashid Ismail, SIRIM's Vice President of the Corporate Division.

6 November 2012

APPOINTMENT OF SIRIM-AWS TESTING FACILITY TO KISMEC

Kedah Industrial Skills and Management Development Centre (KISMEC) has been appointed as the centre of SIRIM-AWS testing facilities to train skilled workers in the field of welding, particularly for the oil and gas sector. Dr Zainal Abidin Mohd Yusof, President and Chief Executive of SIRIM Berhad presented the American Welding Society Accredited Testing Certification under SIRIM to KISMEC. Also present at the ceremony was Dato' Mukhriz Tun Dr Mahathir, Deputy Minister of International Trade and Industry.

20 November 2012

VISIT AND NETWORKING SESSION BETWEEN KOREA INDUSTRIAL TECHNOLOGY ASSOCIATION-SIRIM SABAH

Thirteen delegates from Korea Industrial Technology Association visited SIRIM Sabah to discuss possible cooperation in the field of biotechnology. The delegates also visited the Cosmetics Pilot Plant Laboratory.

21 November 2012

NATIONAL QUALITY SUMMIT 2012

The two-day summit was officiated by YB Datuk Hj. Fadillah Yusof, Deputy Minister of Science, Technology and Innovation with a participation of more than 200 participants. The summit was organised to share current development and best practices in quality in ensuring the relevance and sustainability of businesses. It also explored in detail on the importance of quality to an organisation in sustaining its competitiveness and how quality enables global market penetration in sectors such as manufacturing, education and healthcare.

23 November 2012

MAJLIS SIRIM – INDUSTRI 2012

MSI 2012 was officiated by YB Datuk Hj Fadilah Yusof, Deputy Minister of Science, Technology and Innovation. A total of 900 industry players attended the event in which the Deputy Minister also launched two new services by SIRIM QAS International, namely Fire Testing Laboratory and Supply Chain Security Management System Certification Scheme.

4 December 2012

COURTESY CALL BY H.E. REPUBLIC OF SUDAN AMBASSADOR TO MALAYSIA

The Ambassador of Republic of Sudan to Malaysia, Nadir Yousif Eltayeb Babiker made a courtesy call to the SIRIM's President's Office for a short meeting with Dr Zainal Abidin Mohd Yusof, President and Chief Executive of SIRIM Berhad. He also visited SIRIM's gallery for an in-depth knowledge of SIRIM's services and technology.

STATE OFFICES

SIRIM PULAU PINANG

Abdul Basid Ramli
General Manager

Lot PT483 Mukim 6.
Jalan Permatang Pauh,
Pulau Pinang,
Malaysia.

Tel: (604) 5377436
Fax: (604) 5377 436

SIRIM NEGERI SEMBILAN

Rosman Taib
Head

No. 7G & 7-2,
Lorong Taman Perniagaan,
Senawang Business Park 1/1,
Senawang Business Park,
70450 Senawang,
Negeri Sembilan,
Malaysia.

Tel: (606) 6791511
Fax: (606) 6781512

SIRIM KELANTAN

Capt. (R) Kamaruzzaman Zakaria
Head

Aras 1, Bangunan
Pentadbiran RTC Kelantan
Lot 3309, Batu 4,
Lebuhraya Pasir Mas- Salor
15150 Kota Bharu
Kelantan

Tel: (609) 7431904 / 7462521
Fax: (609) 7473116

SIRIM PERAK

Khairul Aimi Kamaludin
Head

Lot 67 & 68,
Jalan Johan 1/1,
Kawasan Perindustrian
Pengkalan ll, Fasa l,
31550 Pusing,
Perak Darul Ridzuan,
Malaysia.

Tel: (605) 3669035 / 3669036
Fax: (605) 3663037

SIRIM MELAKA

Mohd Radzi Awang
Head

No, 1112-1,
Kawasan Perindustrian
Batu Berendam,
75350 Melaka,
Malaysia.

Tel: (606) 2866601/ 2866602
Fax: (606) 2866603

SIRIM TERENGGANU

Mohamad Nizam Zainuddin
General Manager

Lot 1929P,
Kawasan Perindustrian
Chendering,
21080 Kuala Terengganu,
Terengganu Darul Iman,
Malaysia.

Tel: (609) 6175031 / 6175030
Fax: (609) 6175026

SIRIM PAHANG

Zulkefli Mohd Sahlan
Head

Jalan Pintasan
Kuantan-Kuala Terengganu,
Kawasan Perindustrian Gebeng,
21600 Kuantan,
Pahang Darul Makmur,
Malaysia.

Tel: (609) 5836336 / 5837600
Fax: (609) 5836767

SIRIM SABAH

Khairan Untoh
General Manager

Beg Berkunci 2072, 88999,
Kota Kinabalu,
Lot 1, Fasa 1, Zon Perdagangan
(KKIP),
Jalan Timur 6,
88450 Sabah,
Malaysia.

Tel: (6088) 497082 / 490873
Fax: (6088) 496357

SIRIM JOHOR

Ahmad Faizal Ismail
General Manager

No.3, Jalan Teknologi 5,
Taman Teknologi Johor,
81400 Senai,
Johor Darul Takzim,
Malaysia.

Tel: (607) 5990033 / 5990077
Fax: (607) 5998366

SIRIM SARAWAK

Mohd Abdul Kadir Johari
General Manager

Lot 802,
Taman Perindustrian Demak Laut,
Jalan Bako, Peti Surat 3292,
93764 Kuching Sarawak,
Malaysia.

Tel: (6082) 439052 / 439054
Fax: (9082) 439060

OFF-CAMPUS FACILITIES

SIRIM INCUBATION CENTRE (SHAH ALAM)

Lot 10-20,
Kawasan MIEL, Fasa 2,
Jalan Beremban 15/12
40000 Shah alam
Selangor

Tel: +603 5515 2202
Fax: +603 5510 2727

AUTOMOTIVE ENGINEERING CENTRE

Lot 13, Jalan Pahat 16/18E,
40200 Shah Alam
Selangor

Tel: +603 5510 2175
Fax: +603 5510 2369

ADVANCED AUTOMATION AND RFID CENTRE

Lot PT 5285, Off Lebuhraya
Puchong-Sg Besi
57000 Bukit Jalil
Kuala Lumpur

Tel: +603 8992 6043
Fax: +603 8992 6190

NATIONAL CENTRE FOR MACHINERY AND TOOLING TECHNOLOGY (MANAGED BY THE ENGINEERING CONSULTING CENTRE)

No. 1A, Persiaran Zuhrah
Kawasan Perindustrian Rasa
44200 Hulu Selangor
Selangor

Tel: +603 0603 6000
Fax: +603 6063 6163

SIRIM INCUBATION CENTRE (SEPANG)

Lot PT. 4803,
Bandar Baru Salak Tinggi
43900 Sepang, Selangor

Tel: +603 8775 7200
Fax: +603 8706 2553

NATIONAL METROLOGY LABORATORY

Lot PT. 4803,
Bandar Baru Salak Tinggi
43900 Sepang, Selangor

Tel: +603 8778 1600
Fax: +603 8778 1661

ADVANCED MATERIALS RESEARCH CENTRE

Lot 34, Jalan Hi-Tech 2/3
Kulim Hi-Tech Park
09000 Kulim, Kedah

Tel: +604 4017101
Fax: +604 4033225

INDUSTRIAL NANOTECHNOLOGY RESEARCH CENTRE

Lot 34, Jalan Hi-Tech 2/3
Kulim Hi-Tech Park
09000 Kulim, Kedah

Tel: +604 4017101
Fax: +604 4033225

SIRIM BERHAD,
NO.1, PERSIARAN DATO' MENTERI
SEKSYEN 2, PETI SURAT 7035
40700 SHAH ALAM
SELANGOR DARUL EHSAN

TEL: 603 5544 6000
TOLL FREE: 1 300 88 7035
FAX: 603 5510 8095
WEBSITE: WWW.SIRIM.MY

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