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Malaysia Smelting Corp fires up as tin demand shines

MSC continues to strengthen its niche expertise in tin, including pursuing growth and undertaking initiatives to upgrade its smelting technology

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A PROBLEM-SOLVER at heart, Patrick Yong thrives on challenges. The chief executive officer of Malaysia Smelting Corporation Bhd (MSC), the world's largest independent custom tin smelter, has a razor-sharp mind that belies his 65 years.

"If you don't look forward to or take up challenges, you will grow moss - turning into a stationary stone, one that's no longer rolling or moving forward," quips the Kuala Lumpur-born engineer by qualification.

Mr Yong began his career with Malaysia's National Electricity Board in the 1970s, after which he moved on to an electrical engineering consultancy role. In 2004, he founded a battery solutions firm, which was subsequently acquired. During this period, Mr Yong established his proficiency in electrical distribution systems and pursued research in the field of efficiency in energy conversion, leading to a PhD in electrical engineering.

In his 60s, just as he was ready to call it a day, a very dear friend presented him the opportunity at MSC. "This was a challenge that spurred me to step out of retirement," Mr Yong recalls.

"Looking at the situation in MSC, I was able to figure out the areas that needed to be fixed. I could see a light at the end of the tunnel - and it wasn't the headlights of an oncoming train - so I took the job."

He was appointed MSC's chief executive officer in October 2016, taking over the reins from former CEO Chua Cheong Yong. Mr Yong was subsequently appointed to the board as a non-independent executive director in June this year.

MSC is 54.8 per cent owned by one of Singapore's oldest companies - The Straits Trading Co Ltd - and has been primary-listed on Bursa Malaysia since December 1994. The group, which completed its secondary listing on SGX Mainboard in January 2011, has a market capitalisation of about S\$90 million.

A global leader in custom tin smelting since 1887, MSC produced 27,712 tonnes of the silvery-white metal in 2017, maintaining its ranking as the third-largest supplier globally.

Mining is the group's largest profit generator. In 2004, MSC expanded upstream through the acquisition of Rahman Hydraulic Tin Sdn Bhd (RHT), which is Malaysia's oldest and largest operating open-pit, hard-rock tin mine in Perak, a state with a rich mining history.

The group's smelting operations is carried out by its 100-year-old smelter in Butterworth, Penang, which converts tin-bearing ores into high-purity tin metal for industrial applications.

MSC's third source of income is derived from selling finished products to end users. In the mid-1990s, the group began a tin trading and marketing arm

under the smelting division, which provides hedging, pricing and marketing links to the Kuala Lumpur Tin Market/London Metal Exchange (KLTM/LME), as well as global consumer markets.

The MSC Straits refined tin brand - registered at KLTM and LME - is accepted worldwide, and has purity ranging from the standard Grade A to the premium grade electrolytic tin.

The group also owns a 40 per cent stake in Redring Solder (M) Sdn Bhd, which provides entry into a profitable downstream solder manufacturing business with significant growth potential.

Out-of-the-box

"Many people are surprised by what I do. They say, 'You're an electrical engineer - what are you doing in metallurgy?'," Mr Yong grins.

"Being an engineer requires logical thinking, analysis and problem-solving abilities. Essentially, it's about getting a business to work in the most efficient way possible. For example, if you're a farmer and you're caught in a wave of prolonged flooding, what do you do? Stop rearing chickens - rear ducks instead!"

And his mantra? When you know what you do not know, you will be able to find a solution. But if you don't know what you don't know, you end up groping in the dark - and losing a lot of money.

"There will always be things we cannot control - for example, the US dollar-ringgit exchange rate and global tin prices, which are not determined just by demand-supply dynamics, but also politics, and how hedging can be a double-edged sword," Mr Yong notes.

"There's nothing much we can do about those issues, but the rest are technical problems, and technical problems are always the easiest to resolve."

Over the last few years, Mr Yong has been busy clearing up the group's legacy issues, including stemming the bleeding from non-core investments. "These were areas unrelated to our operations, and investments that we didn't have direct control over, all of which were draining our profits," he adds.

The next step was to implement a "salvation exercise", where assets were hived off. "We're almost there - the things that we've not done are things we cannot see, and do not know. This leaves the path clear for the group to move forward."

MSC has been profitable for five of the last 10 years, reporting an average annual revenue of RM2.02 billion (S\$0.66 billion) over the period. For the years ended Dec 31, 2017 and 2016, it swung to net incomes of RM16.1 million and RM34.3 million respectively, from net losses of RM4.8 million and RM9.9 million in 2015 and 2014 respectively.

State-of-the-art

Looking ahead, MSC continues to strengthen its niche expertise in tin across the global supply chain, pursuing growth through organic means and strategic acquisitions. It continues to evaluate investment opportunities, focusing on regions where country risks can be effectively managed, and where mines can be developed and operated with relatively lower cost structures, Mr Yong says.

At the same time, RHT is carrying out exploration activities to uncover new tin mine deposits within Malaysia, so as to ensure a sustained supply of feed intake to support its smelting operations.

It is also conducting a metallurgical test programme to determine the characterisation of new deposits, and establish a proper set-up for the processing plant to treat these ores. It will also undertake a pit optimisation analysis to plan a new pit design that is safe and economically profitable.

Another key initiative is upgrading the group's tin smelting technology - currently in progress at its new Pulau Indah smelting plant in Port Klang - so as to address the production inefficiencies of its aged smelter.

The new facility will use state-of-the-art, extractive technology, with a top submerged lance furnace that implements a comprehensive, single-stage smelting process, instead of the current multi-stage procedure. This is expected to boost extraction yields and annual production capacity - estimated as high as 50 per cent - as well as reduce manpower costs and the group's overall carbon footprint. Expected to be fully commissioned in 2020, this plant will be one of the lowest-cost smelting facilities in the world.

"We've grown our mining production output from 8.5 tonnes per day to nine tonnes per day, and we'll be approaching 10 tonnes per day in the next one to two years," Mr Yong says.

"We're also looking at opening new mines, and getting more mining leases from the government within the state of Perak."

Four years ago, RHT acquired 80 per cent interest in SL Tin Sdn Bhd, which holds a mining lease over 267.3 hectares in Sungai Lembing, Pahang for a period of 15 years. The group has identified mineable tin ore deposits during its initial exploration works, and started small-scale mining operations this year.

"Malaysia is still full of tin. The state government is looking at us to spur a revival in the country's tin industry, and put Malaysia back on the tin map," he added.

Another priority is to boost research and development (R&D) investment levels in tin, which are currently "insufficient", Mr Yong said. Setting up a R&D centre in the group's new Pulau Indah facility, as well as collaborating with the metallurgical and geological industries, is on the cards, he adds.

Set to sparkle

Overall prospects remain bright, Mr Yong points out. "I'm passionate about tin - not because I grew up with it, but because I can see its future - it's very clear, there's no other direction to go, and we're in the right industry."

"Among all the non-ferrous metals, tin is the easiest to understand, but few people comprehend it. It is also the easiest metal to smelt, behind gold and silver in value, but way above the two in terms of applications," he said.

Today, tin is used in a myriad of products ranging from food packaging to smartphones, and from cars to solar cells, with the latest discoveries centred on the electrical and energy storage areas.

"While tin consumption will still largely come from the expanding consumer electronics industry over the medium term, we expect future demand to be driven by new applications in energy-storage technologies," Mr Yong says.

"In particular, the rise of tin usage in lithium-ion batteries bodes well for the group, as more automotive manufacturers push for electric vehicles."

Ultimately, the metal's superior conductive properties will define its future, he adds.

"Gold, silver and tin perform well in terms of conductivity, but gold and silver are priced on a per gram basis. With regards to energy storage devices or accumulators, tin plays a big role - you get fantastic charge and discharge rates with the addition of tin."

In the first nine months of 2018, average tin prices edged higher to US\$20,380 per tonne from US\$20,128 a tonne in the year-ago period, according to KLTM data. Last year, average tin prices rose by more than 10 per cent to approximately US\$20,000 a tonne, as compared to the 2016 average.

The International Tin Association (ITA) notes in its 2017 review that tin fundamentals remain strong, and the probability of a supply shortage developing in the next five years is high, even if growth in usage remains slow.

It also highlights the potential increase in demand for the metal in energy-related applications over the next decade and beyond, with early signs being the use of tin in lead-acid batteries, and a rapid growth in solders used in solar cell production.

Inspired by the rosy outlook, retirement is not on the horizon for Mr Yong - not yet anyway. "At the moment, I'm still enjoying my job, and there's much to be done. I'm excited about the new technologies that we can apply to bring tin and the business to a new dimension."

"Also, you don't retire until you have put in place a succession plan, one that doesn't leave the group in the lurch. That's what we're working on now," he adds.

Outside the office, Mr Yong immerses himself in music, with the classical guitar as his instrument of choice. The self-taught musician, who began playing by ear at the age of 12, enjoys evergreens such as Moonlight Sonata, Fur Elise and Concerto de Aranguez.

The father of a son and daughter - both in their 30s - never fails to remind his children about the importance of hard work and integrity. Another secret to success, he believes, is networking with the right people.

"In my opinion, behind every successful man or woman is another successful man or woman. Having someone who believes in you and is willing to give you a break - that's invaluable. I, for one, was very fortunate in that respect."

- **This is an excerpt from SGX's Kopi-C: The Company Brew, a regular column featuring C-level executives of SGX-listed companies. Previous editions can be found on SGX's website www.sgx.com/research**