SPECIAL REPORT ON MALAYSIA

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A chemical hub for Southeast Asia

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INTRODUCTION

Since the nation's establishment as a unified state in 1963, Malaysia has developed a strong international reputation as a keenly ambitious country. The country sits at an enviable location at the centre of Southeast Asia, flanked by one the world's most important shipping lanes; the Malacca Strait. For centuries this region has been regarded as a gateway to Asia for traders and investors and has become well established as a center for global trade.

BUILDING ON STABILITY

Malaysia is a market oriented economy that has achieved continued political stability and is well-known for its pro-business government that welcomes international investment with liberal and transparent policies.

From its beginnings as an agriculture-based economy, founded on its rich resources of natural rubber and palm oil, the 80s and 90s saw a government-driven shift towards manufacturing and industry in areas such as computers and consumer electronics.

Malaysia is no longer considered as a developing economy and has committed itself to being acknowledged as a fully developed nation. Since 2006, the government has been implementing "Vision 2020", a target for reaching fully developed nation status by year 2020. This involves a series of economic and business policies, as Dato' Jacob D. Sagan, Deputy Minister for International Trade and Industry (MITI) explains: "Its aim is to make Malaysia the preferred investment destination and among the most globally competitive trading nations by 2020."

The nation has already been hugely successful at attracting foreign direct investment and in 2010 it ranked in the IMF's top ten most competitive economies for the first time in the nation's history. "We are hosting about 5,000 foreign companies here in Malaysia," points out Datuk Jalilah Baba, Director General of the Malaysian Industrial Development Authority (MIDA).

Her organization can take some of the responsibility for this: "The role of MIDA is to provide facilities for investment promotion and approval. Once the projects are given approval, we follow up on all the requirements of the investors so that they can realize their projects very fast," she continues.

CHEMICALS – A MALAYSIAN ANCHOR INDUSTRY

Dr. A. Hapiz Abdullah, Chairman of Chemical Industries Council of Malaysia (CICM) and Managing Director of DuPont Malaysia considers the chemical sector: "One of the anchor industries in Malaysia. It forms the building blocks of local manufacturing."

Malaysia boasts one of the most developed chemical industries of the world. The nation exports chemical products worldwide and the sector represents the second largest contributor to manufactured exports. "The chemical industry is one of the leading industries in Malaysia, that, under our industrial master plan from 2006 to 2020, will be developed further," explains Dato' Jacob D. Sagan, who demonstrates this with his ministry's keen ambition for further investment in the sector: "Targeted investment in the chemical industry between 2006 and

Dr. A. Hapiz Abdullah, Chairman of Chemical Industries Council of Malaysia (CICM) and Ybhg Dato' Ir Dr Johari Basri, Director General of the Department of Occupational Safety and Health (DOSH) at the Responsible Care Awards 2009

Dato' Jacob D. Sagan, Deputy Minister for International Trade and Industry

2020 is RM34 billion (USD10.6 billion), with an average annual growth of 6.9%. By 2020, we have also targeted that the exports of chemicals will reach RM36.7 billion (USD 11.5 billion)."

"Malaysia is successful in attracting investments in the chemical industry because of the availability of feedstock and also because of the supporting government policy in terms of providing a conductive environment for doing business, providing stability and the strong support of MIDA in ensuring the needs of the investors are met," believes Datuk Jalilah Baba.

The areas in which the chemical industry in Malaysia is especially advanced are petrochemicals and oleochemicals, due to the rich natural resources with which the nation is blessed. In 2007, oil and gas reserves in Malaysia amounted to 20.18 billion barrels equivalent and the Government estimates that at current production rates Malaysia will be able to produce oil for up to 18 years and gas for a further 35 years.

The local agricultural sector is dominated by palm and rubber plantations, which have led to the nation becoming a top producer and exporter of natural rubber and palm oil.

In 2009, Malaysia had 4.7 million planted hectares of palm oil that produced over 19 million tons of crude palm oil and crude palm kernel oil, over 2 million tons of which are used in oleochemical manufacturing. Natural rubber production has led to the country becoming a leading manufacturer of rubber products and home to industries that consume large quantities of synthetic rubber and specialty chemicals.

The Chemicals Industries Council of Malaysia (CICM) has over 100 members and promotes co-operation among chemical companies and the development of the chemical industry in Malaysia. Sobri Ahmad, General Manager of CICM, sees good potential for further development: "The chemical industry fundamentals for growth are here. The global chemicals market is moving towards the main markets in China and India, and we are well placed to serve these markets."

MALAYSIAN STRENGTHS

Malaysia has a population of over 28 million and GDP per capita is second in Southeast Asia, after Singapore. The population is made up of a rich multicultural mix, that Dato' Jacob D. Sagan sees as a major strength for Malaysia: "We are very lucky to have a multi-racial population made up of Indians, Chinese and our local Malaysians, and of course the English speaking background that we have. One of Malaysia's major pull factors is this large pool of young, educated and trainable workforce."

Infrastructure is another key benefit of Malaysia that Dato' Jacob D. Sagan is keen to highlight: "The great advantage to manufacturers in Malaysia has been the nation's persistent drive to develop and upgrade its infrastructure and, over the years, this investment has paid off and serious bottlenecks have been avoided," he says. Today Malaysia can boast of having one of the most well developed infrastructures among the newly industrializing countries of Asia.

Industries in Malaysia are mainly located in the 200 industrial estates or parks, and 18 free industrial zones that have been developed throughout the country. The Port Klang Free Zone (PKFZ) is one example where 1000 acres of land have been recently allocated, sent conveniently adjacent to Malaysia's busiest port. Within

PKFZ selected industries can operate with considerable tax incentives. Tan Sri Dato' Dr. James Alfred, Co-Chairman of the PKFZ Executive Committee says: "We welcome many aspects of the chemical sector to join us at PKFZ. It is an excellent opportunity for exporters to be close to one of the leading ports of the world whilst enjoying the tax free status."

New sites, like PKFZ, are fully equipped with infrastructure facilities such as roads, water supply, telecommunications, and are continuously being developed throughout the country. The government has identified six corridors of development in the country where specialized parks continue to be developed to cater for the needs of specific industries.

CRISIS RECOVERY

Last year, no industry or market was totally insulated against the global financial crisis and a nation that relies upon exports for around 80% of gross domestic product was obviously particularly exposed. In response to the crisis, in March 2009 the Malaysian government announced a RM67 billion (US$21 billion) stimulus package designed to strengthen liquidity in the markets and boost consumer confidence by guaranteeing bank deposits.

Overall, the economy contracted 1.7% for the whole year 2009 as a result of the global economic downturn; far less than the first anticipated contraction of 3%. The country registered a 10.1% GDP growth in the first quarter of this year and is anticipating a 6 to 7% GDP growth for 2010.

Mr. Herbert Dittmar, Managing Director, Bayer Co. Malaysia

Datuk Jalilah Baba, Director General of the Malaysian Industrial Development Authority (MIDA) explains: "I think ASEAN has learned from its previous experience in 97-98 of our regional financial crisis. It made us better prepared to face the global economic crisis. We also have the support of the ASEAN region where there is good co-operation among ASEAN countries."

Herbert Dittmar, Managing Director, Bayer Co. Malaysia, shares this regional optimism: "It seems that Asia Pacific has gotten through the global downturn fairly well and we're quite confident that its growth will continue. The source of that growth is that more and more of the demand is generated domestically as the reliance on North American and European consumption is reducing."

During the crisis, it was often small and medium enterprises (SMEs) that were impacted the greatest. Techbond, a local adhesives company, had enjoyed impressive growth over the past twenty years by focusing on supplying the local furniture industry, a market highly dependent on exports. However, the crisis forced the company to change their strategy: "Our business was totally exposed to the furniture market and the American crisis cut the sales of furniture by more than half. In response, we have diversified into other industries over the past two years, such as packaging, cigarettes and the car industry. The crisis initially hit us hard, but now that we are diversified we don't feel the crisis anymore," founder and Managing Director, Lee Seng Thye relates.

In fact Techbond are now adding capacity to their operations and see a bright future: "This year we open the first Emulsion Polymeric-Isocynate (EPI) factory in Malaysia that will produce 500 tons per month. Our turnover was around RM30 million in 2009, but we target a turnover of RM60 million within the next two years."

ASEAN OPEN TRADING OPPORTUNITIES

Malaysia is a founding member of the Association of Southeast Asian Nations (ASEAN) and is committed to unifying the region into a potent international force. With the full realization of the ASEAN Free Trade Area (AFTA) Malaysia will benefit from a single market with a total population of 567 million, a combined GDP of US$1,064 billion and a total trade of US$1,442 billion.

2010 is an important year in ASEAN economic integration. AFTA is now fully operational for the ASEAN Six (Brunei, Indonesia, Malaysia, the Philippines, Singapore and Thailand). This means that 99.1% of products can be traded duty free from this year on and that all duties will be eliminated by 2015 for the whole ASEAN.

In addition, free trade agreements are now fully operational between the ASEAN and China and Korea. Further agreements are in commencement between the ASEAN and India, Australia and New Zealand.

Tiam Chong Kong, Group Chairman of Behn Mayer Chemical Holdings, the Southeast Asian holding company of the German multi-national, elaborates on the opportunities. "Here at Behn Mayer we have operations in a number of ASEAN countries. The biggest advantage to us is that we can expand our operations anywhere in ASEAN without having to worry about tariff barriers."

Local chemical distributor, World Wide Resins and Chemicals (WWRC), is another company that is benefiting from opportunities associated with Malaysia's open trade policies. WWRC is starting a new titanium oxide agency for China's biggest producer, Dongjia Group. Titanium dioxide, the white pigment, has strong demand growth in Malaysia. The ASEAN-China FTA has opened this market to Chinese imports.

"We are very lucky that we entered into this agreement at the right time as Dongjia completed their expansion last year, and we are very excited about the regional opportunities with this product," says WWRC Malaysia Managing Director, Teoh Weng Chai.

The free-trade agreement with China could, however, be a double edged sword. China's huge chemical and petro-chemical industry dwarfs that of Malaysia and indeed that of any ASEAN member.

Critics are concerned that this agreement will lead to a movement of manufacturing facilities to China from ASEAN countries due to the lower costs of labor as well as the critical mass developed there.

Paul Harrap, Head of Southeast Asia for Siegwerk, the German ink manufacturer says: "We haven't seen any large effect on the market yet, but it is too early to say. For multi-nationals like us we feel it will benefit our activities here, but stand alone companies, especially manufacturers, will find it considerably more difficult to compete."

REGULATORY ENVIRONMENT

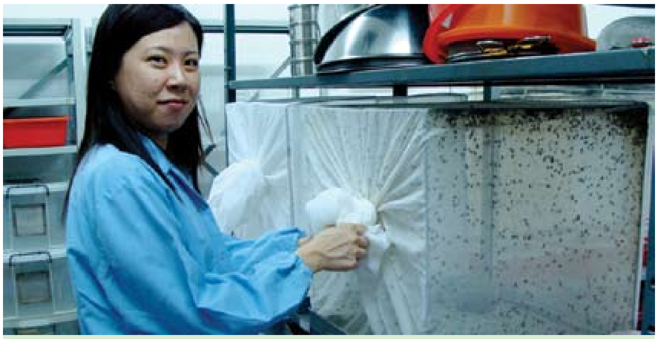
A key challenge for the Malaysian chemical industry is in the establishment of high local regulatory standards and the meeting of international regulation. Malaysia is fully aware of the importance of creating strong domestic standards in order to establish a global brand for its chemical goods.

Mr. Sobri Ahmad, General Manager, Chemical Industry Council Malaysia (CICM)

SIRIM QAS International is Malaysia's leading certification, testing and inspection body that offers conformity assessment services for commercial purposes and to support government regulatory enforcement. "Our certification helps Malaysian industries enter markets where these considerations are a necessity," explains Khalidah Mustafa, Managing Director, SIRIM QAS International. She feels that their service is essential in transmitting overseas the message that Malaysia is a manufacturer of quality products "What SIRIM QAS International provides is that extra edge to develop the confidence of the buyers overseas. We use international standards and methodology to attest to the quality and reliability of Malaysian products and services. We recognize that confidence in Malaysian exports can only be achieved if people are also confident in our own capability."

Sobri Ahmad, General Manager, CICM, agrees with this emphasis on the Malaysian chemical sector meeting international regulations: "We are working to conform to the regulations imposed by countries around the world. These will eventually be very useful as they clarify requirements and will mean that our products will be accepted worldwide. It may be hard but we have to go through that learning curve," he says. CICM's core activities include facilitating compliance with regulatory and international standard requirements such as the UN's Globally Harmonized System (GHS) and the EUs REACH regulation. The association also encourages the continuous improvement of health, safety and environmental performance through their own Responsible Care Program (RCP). The Malaysian industry feels that they are well prepared to achieve REACH compliance, as Dr. Hapiz Abdullah, President of CICM and Managing Director of DuPont Malaysia explains: "CICM is working with the government, through MITI, to go on campaign to create awareness on the necessary steps for companies to achieve compliance. Cost is another issue and so we try to assist members in finding ways that they can either pool their resources or find a fair and decent price to proceed individually." Sobri Ahmad adds: "The deadline for oleochemical groups is November 2010 and they are all in place. Other sectors have a 2015 deadline for which we still have a lot to do but we are confident that we will meet that deadline."

Malaysia has also developed its regulatory environment in order to be more attractive to international companies looking to undertake R&D operations. Sumitomo Chemical is a company that places a tremendous emphasis on innovation and Andrew Sutton, Managing Director of Sumitomo Chemical Enviro-Agro Asia Pacific and Head of Environmental Health South & Southeast Asia, believes Malaysia has achieved a high standard of Intellectual Property protection: "We operate a state of the art research facility for the development of tropical, public health related products intended for the global market. Here in Malaysia, we are happy that the intellectual property laws are well controlled and set up to cover and protect fairly." This regulatory protection combined, with the nation's cost competitiveness, has led Sumitomo Chemical to expand in both scope and scale: "We began as a testing facility and have grown into a global centre for primary development. We have recently doubled the size of our operations and are looking to invest further," explains Mr. Sutton.



Sumitomo Chemical's employee working in the company's world class technical service laboratories for the insecticide business

PETROCHEMICALS

The petrochemicals sector in Malaysia has enjoyed rapid growth, mainly attributed to the availability of oil and gas as feedstock at competitive prices. This has been catalyzed by the well-developed infrastructure, the strong base of supporting services and the country's cost competitiveness.

Based on these strengths, Malaysia now enjoys a vibrant petrochemical industry, dominated by the national oil company, Petronas, but inclusive of many major international players. There are 42 companies in operation producing petrochemicals with a combined capacity of 12.9 mtpa. Malaysia can now produce and export a wide range of major petrochemical products from world class plants that have also significantly contributed towards the development of local downstream services and processing facilities by providing a steady supply of feedstock.

The long term reliability and security of gas supply is the most important foundation of the country's petrochemical industry. Malaysia has the world's 14th largest natural gas reserves and 23rd largest crude oil reserves. These reserves are complemented by partnerships with other ASEAN gas producers such as Vietnam, Indonesia and the Malaysia Thailand Joint Development Area (JDA).

PETRONAS – MALAYSIA'S OIL AND GAS STEWARD

Petronas, short for Petroliam Nasional Berhad, was founded in 1974 and vested with the exclusive ownership and control of the country's entire oil and gas resources. Petroleum has been a major driving force in the nation's economy and Petronas has been entrusted with the responsibility of adding value to the nation's hydrocarbon resources and moving up the value chain in steering the nation towards its aim of becoming a high-income economy.

Head-quartered in the iconic Petronas twin towers, the Petronas Group today has interests in 31 countries and is engaged in a wide spectrum of petroleum activities. Their integrated operations span upstream exploration and production of oil and gas to downstream refining and petrochemicals, and the manufacturing and distribution of various products.

The history of Petronas' diversification has been closely tied to the government's vision on national development. In 1981 the Malaysian government initiated the "Gas Masterplan" with the idea to expand gas production into the components of gas such as methane, ethane, propane and butane. This supported the government's national policy on fuel diversification whilst expanding the value chain of rich natural gas resources.

The "Gas Masterplan" was followed by the 1993 "Petrochemical Masterplan" whereby Petronas was tasked to venture further downstream into the petrochemical arena as a continuation of the group's integration and diversification. It has grown from an initial capacity of just 600,000 tpa of urea in 1985 to become a globally significant producer in excess of 10 million tpa production, with a broad product range. The company now expresses the desire to continue to the next phase of growth.

"The Petrochemicals side may not provide the volume of other divisions,


Petronas workers inspect part of their world class petrochemical complex in Kertih, Malaysia

but our profits are good and we achieve a high return on investment thanks to our proximity to demand centers and the efficiency that stems from the group's integrated operations," explains Kamarudin B. Zakaria, SVP Downstream Operations, Petronas Group. Mr. Kamarudin describes the future targets: "Petronas intends to become a key petrochemical player in the Asia Pacific and a partner of choice. Being a key player means you have to have significant presence and so we have to grow. We are not going to be a chemical company like BASF or Dow, that are focused on end use chemicals. We decided to be at the front end of the value chain but with some differentiation."

Despite the recent emphasis on growing the group's global presence, he also indicates that future investment will be closer to home: "The focus will be to be in Malaysia for the time being because our assets in Malaysia have been very productive and risk is manageable here."

Petronas Group recently announced its intention to list its petrochemical unit on the Malaysian stock exchange, Bursa Malaysia, by the end of this year. All the assets related to the petrochemical sector under the group will be put under one holding company. It is believed that the listing will generate in excess of USD 2 billion.

SUCCESS THROUGH INTERNATIONAL PARTNERSHIP

Since its entrance into the petrochemical sector, Petronas has focused on successful partnerships with international companies that offer experience and expertise in order to systematically transfer know-how to the local work force without jeopardizing the viability of operations.

The emphasis has been on working together to benefit from mutual understanding to increase production, sales and generate more profit. International companies that have worked with Petronas in this field include BASF, BP Chemicals, Dow Chemical Company, ExxonMobil, Idemitsu, Mitsui and Sasol.

Mr. Kamarudin describes some of the benefits of this policy: "We learn from the partner, understand the market, gain market intelligence, market trend and over the years, the know-how is transferred to us. In all joint ventures it is important to understand each other's goals and needs and to be reasonable in finding a healthy balance and good relationship. We are a national oil company and need to localize the benefits of our company's success as much as we can whilst staying competitive. We understand that joint venture companies come here looking for what we can bring to the table as partners."

BENEFITING FROM CLUSTERING

Three major petrochemical zones have been established in peninsular Malaysia; two on the east coast, at Kertih in Terengganu state and Gebeng in Pahang state; and one in the south, in Pasir Gudang, Johor state. Each integrated complex includes crackers, syngas and aromatics facilities. "Clustering is a major advantage, especially in the chemical and petrochemical industry because they need to use centralized facilities. Clustering also creates a concentration of skilled manpower in the same area and encourages the establishment of educational institutions to support these facilities and their investors," says Datuk Jalilah Baba, Director General of MIDA.

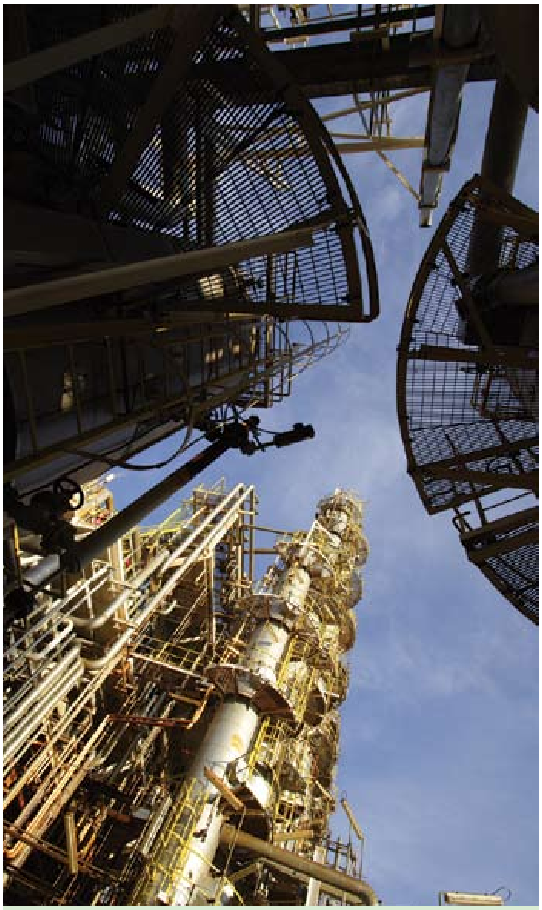
One such example is the Petronas Petroleum Industry Complex (PPIC) in Kertih, which has so far drawn over RM70 billion in investments for both the upstream and downstream developments and comprises a total of 41 plants and facilities.

Six gas processing plants supply about 80% of Malaysia's power needs through the Peninsular Gas Utilization (PGU) system and provide the feedstock to the petrochemical complexes in Kertih and Gebeng. The eleven petrochemical plants within Kertih produce a broad range of products that include ammonia/syngas, ethylene, polyethylene, aromatics, vinyl chloride monomer, polyvinyl chloride, olefins, ethylene oxide/glycols, butanol/derivatives, acetic acid and low density polyethylene for the domestic and export markets. Ethylene Malaysia and Polyethylene Malaysia were two of the earliest plants added to the complex in 1991. The Ethylene plant is a joint venture between Petronas, BP Chemicals and Idemitsu. The Ethylene plant uses ethane feedstock from the onsite gas processing plant to crack 400,000tpa of ethylene that is sold to the Polyethylene and VCM plants in Kertih and the Idemitsu Petrochemical plant in Johor.

The Polyethylene plant, a joint venture between Petronas and BP Chemicals, produces several grades of polyethylene resin for domestic and regional plastic fabricators and converters under the "Etilinas" brand. "Operators have to focus not just on their own unit, but on the upstream and downstream units, which creates a pool of people that can optimize the entire value chain. It creates an effective synergy not just between plants, but also among our service providers," says Yusri Yusof, General Manager of Ethylene Malaysia.

The further integration of the petrochemical to plastic value chain is being encouraged through the establishment of the Kertih Plastic Park (KPP). Using attractive tax incentives, the park aims to promote further downstream investments and enhance capability in the local plastics industry by providing technical and vocational training to complement the work of the local educational institutions. Two companies, Latenfield Pipe Industries and Hi-Essence, have already joined and the park expects the industrial lots to be fully taken up by 2015, attracting RM2 billion worth of investment.

The Kertih Petrochemical Complex includes Centralised Utilities Facilities, operated by Petronas, that supplies facilities to all of the plants. There is a port, a warehousing facility, a water supply system, and a railway system linking the Gebeng complex. There are also centralized tankage and storage facilities available through Kertih Terminals, operated as a



Petronas' Kertih Petrochemical Complex produces a rich array of petrochemical products

joint venture between Petronas, Vopak and Dialog Group. Law Say Huat, Chief Executive Officer Kertih Terminals, sums up the benefits of the relationship: "Dialog specializes in engineering and procurement and Vopak is a global tank terminal operator. Each partner brings different expertise and experience. As a specialized terminal operator our emphasis is very different from a trader, or even a producer. It is our core business and it makes a huge difference in how the terminal is operated."

Kertih Terminals operates over 40 tanks, with a total volume of around 400,000 cubic meters. Mr. Law describes the extent of its integration with the local facilities: "Raw materials are brought in and stored in our tanks before being directly fed to the plants. The plants manufacture their finished products, which are then run directly back to our tanks. From there the products are exported, whether through vessels, tank trucks, ISO tanks, or drums."

Titan Chemicals Corp. is the second largest petrochemical manufacturer in the market that operates ten plants across the south of Malaysia, in the Pasir Gudang petrochemical cluster. The company was Malaysia's first and largest integrated producer of olefins and polyolefins, and now controls a market share of roughly 40% in both Malaysia and Indonesia.

Mr. Muhtar Hashim, Executive Director, Ancom Berhad

SPEARHEADING THE DEVELOPMENT OF OTHER BUSINESSES AND SERVICES

One of the main aims of Petronas Group, as a national oil company, is in ensuring that the nation takes maximum benefit from its shared resource. "What comes out of our petrochemical plants is a feedstock for an entire downstream chain of industries. We pass on semi finished material, which is developed by other industries until the final product is distributed to the end user. A supply chain of industries has been built on the foundation of our manufacturing sites," explains Kamarudin B. Zakaria.

Beyond obvious dependants in the plastics sector, the Petronas' petrochemical operations have spawned the development of a myriad of other services.

"Petronas supplies a range of intermediate petrochemical products. People like us have been able to continue developing our distribution network and many industries have grown because of the availability of these products," agrees Muhtar Hashim, Executive Director, of Ancom Berhad.

Ancom Berhad is an example of a Malaysian company that is making an increasing impression on the global stage. The company began as a pioneer manufacturer of agrochemicals in Malaysia but has now expanded into a diversified group that includes a major focus on chemical trading and distribution.

Ancom are also currently in discussion with Petronas to have a fixed supply of urea to combine with methanol and produce glue for the particle-board market in Vietnam, Thailand and Myanmar. "It will expand the methanol business for Petronas, the urea business for Petronas and also the exports of Malaysian particle-board to countries within the region. It helps us, it helps Petronas and it helps the nation by expanding the market for particle-board."

Petronas has also helped create a thriving oil and gas engineering community that includes both international EPC majors and locally developed engineering specialist firms like Innovative Fluid Processes and Minconsult. In order to do business with Petronas or its related companies, these service providers must acquire a special license.

Initially, these licenses were based on company equity and local participation, but the conditions have now developed to include specification on ISO certification and HSE auditing. Sarjit Singh, General Manager of Rotary MEC (M) sees this as a positive influence: "This requirement increases the professionalism of our sector and makes us more relevant to do jobs overseas."

iPerintis is one of the leading ICT service providers in Malaysia. It began as Petronas Group's in-house e-business support. In 2004, iPerintis was spun off and made fully independent. It won the contract to provide all ICT services to Petronas as an outsourced contractor. "We've become the preferred supplier for IT with the intent of reducing cost and ensuring that IT was used appropriately across the group. We are run at arm's length with our own policies and procedures," explains John Miller, Managing Director of iPerintis.

Having spun the company off has meant that the company must now compete with other international ICT companies, but Mr. Miller believes that they are well equipped for that challenge "Petronas is huge and very complex and we're managing the IT end to end in that environment. Our credentials are very strong and have the international accreditation to back that up." Mr. Miller also believes that the experience gained within a group such as Petronas has given the company a unique insight into the oil sector: "We understand the business end to end, from upstream to downstream and can talk the same language."

PLASTICS

Malaysia is one of the largest plastic producers in Asia and is able to produce high-quality products in the plastic packaging sector at competitive prices due to the ready supply of feedstock. The average growth of the plastics industry over the past 10 years has been in the region of 15% and in 2008, total trade for plastic products was RM14.94 billion (US$4.68).

Malaysian polyvinyl chloride (PVC) demand is roughly 200,000 tons and is dominated by three domestic producers. One of which, Industrial Resins Malaysia (IRM,) has a forty year history in the market and a 50,000tpa PVC and 35,000tpa downstream compounding capacity.

As PVC consumption is traditionally focused on the construction sector, their products have been key to the nation's development: "We've served Malaysia well over the last 40 years. The pipes and cables that have built this country have been derived from our products," recalls Dato' Abd Karim Bin Ahmad Tarmizi, CEO of IRM.

Now that the nation is reaching a more developed state, Dato' Abd Karim Bin Ahmad Tarmizi is looking for the next opportunity. "One possible focus for the future is to use PVC to form wood composites without making use of timber," he explains.

"We are working on utilizing palm oil fibers, waste from oil extraction. There are millions and millions of tons of that material being thrown away, being burnt and being used for composting. In another year or so, we hope to reach results and market this product across the world."

The Idemitsu Group was another pioneer petrochemical investor in Malaysia and partner with Petronas in the Ethylene plant in Kertih. In 1994 they built the first polystyrene (PS) plant in the ASEAN that today has a capacity of 146,000tpa and a 60% market share in Malaysia.

Exports are becoming increasingly important for this company as domestic consumption has contracted due to the transfer of appliance manufacturing to China. "We have a lot of history in this market and a long history with Petronas, which has given us the experience and expertise to find success as a regional exporter. Here we can be close to our local customers and yet well equipped to distribute across the region" says Narumi Hata, Managing Director of Idemitsu Malaysia.

Toray Industries, the Japanese chemical conglomerate, began operations in Malaysia in 1992 with a 35,000tpa factory of acrylonitrile butadiene styrene (ABS) plastic resin. It has since expanded nearly ten times to its present capacity of over 330,000tpa for high quality ABS resin that it markets under the brand name Toyolac and exports globally.

Yasuhiko Sasada, Managing Director of Toray Plastics (Malaysia) explains the global importance of Malaysian operations: "It was our first ABS resins manufacturing base outside of Japan and has become the largest producer of ABS resins in SE Asia."

Yule Catto & Co Plc has a large presence in Malaysia, both through its wholly owned subsidiary Revertex, and joint venture called Synthomer. Revertex is very well known in Malaysia as a manufacturer and marketer of natural rubber concentrates that has successfully

Dr. Brendan Catlow,
CEO, Revertex and Synthomer

Facilities of Industrial Resins Malaysia (IRM),
manufacturer of PVC, resins and compounds

diversified into manufacturing polymers and resins.

Synthomer Group operates in four continents with 12 production sites and provides a portfolio of speciality polymers that are unique to the world's polymer industry.

The Synthomer business was brought to Malaysia in 2001 and has since invested over RM100 million in a polymerization plant.

"The European polymer business for Yule Catto remains the most important in terms of size, but it is hampered by the low GDP rates in Europe. This is insufficient for Yule Catto's ambitions and so they look to us in Asia to provide the major growth," says Dr. Brendan Catlow, CEO, Revertex and Synthomer.

The primary market for Revertex is dipped rubber gloves, which can be produced from natural rubber, PVC, polyurethane or Nitrile butadiene rubber (NBR).

"If you look at all types of gloves, the growth rate is around 10% per year, which is driven mostly by the health industry demand. NBR is growing at a faster rate than any of the other types of materials put into gloves, about 15% per year," explains Dr. Catlow.

The world market for NBR latex is around 400,000 tons and growing by 15,000 tons a year. Revertex are the number one supplier in the world of NBR latex and Dr. Catlow has no intentions of letting that change: "In January 2007, NBR capacity was just over 50,000 tons, today it's over 100,000 tons and we've just got approval to add another somewhere between 15,000 and 20,000 tons which will be online in Q1 next year. We're already looking at the feasibility study for an additional 40,000 tons that we intend to get online by the end of 2012. That would take us to close to three times the capacity that we had in 2007."

OLEOCHEMICALS

Oil palm was first introduced to the Malaysian peninsula by Scotsman William Sime and English banker Henry Darby in 1910. Originating from West Africa, the plant was commercialized very successfully in the Malaysian tropics as an edible oil mostly used in the food industry. It also has a vital role as a raw material for oleochemicals, which are used in various manufacturing industries, including pharmaceuticals, cosmetics and detergents. Southeast Asia has become the global hub for palm oil production and Malaysia the leading producer and exporter of basic oleochemicals in the world.

As the world's second largest producer of palm oil, the crop represents one of Malaysia's major socio-economic drivers and an important pillar of the economy. In 2009, the country produced 17.5 million tons of palm oil, of which around 90% was for export. The total revenue generated from these exports was valued at RM49.6 billion, 7.5% of the country's GDP. Currently the industry provides employment to about 570,000 Malaysians, including about 30,000 small holders. The Malaysian "big six" palm oil planters are IOI Group, Sime Darby Bhd, Kual Lumpur Kepong Bhd (KLK), Boustead Holdings Bhd, Felda Holdings Bhd and United Plantation Bhd. Together they represent almost 60% of the country's annual production.

MALAYSIAN OLEOCHEMICAL OUTPUT

The Malaysian oleochemical industry has, since the 80s, expanded rapidly with the granting of incentives by the government. A total of 2.168 million tons of oleochemical products were produced in 2009. The main raw materials used in the manufacture of basic oleochemicals in Malaysia are palm kernel oil, palm stearin, palm kernel fatty acids distillate and crude palm oil. Malaysia accounts for approximately 26% and 13% of the global capacities for fatty acids and fatty alcohols respectively. Almost all oleochemicals produced in Malaysia are exported, which account for 13.2% of the total export revenue of oil palm products per year. The major export markets are the EU, China, US and Japan.

This sector was not immune to the global financial crisis and demand during 2009 fell by 10-15%. "The palm oil price plunged and customers did not take delivery of the products they had ordered. Defaulted contracts hit all the players," Mr. Tan Kean Hua, Chairman of The Malaysian Oleochemical Manufacturing Group (MOMG) and Chief Operating Officer of IOI Oleochemicals explains. "But we have recovered quite quickly. During the second half of last year everything came back to normal and plants are now working at their capacity," he continues.

Desmet Ballestra is the world leader in the fields of engineering and supply of plants and equipment for the oleochemical industry. The company has over 40 years experience internationally and has installed over 400 facilities. The regional Managing Director, K. K. Khoo, sees good opportunities for growth in the local oleochemical sector: "Oleochemicals will be growing substantially in Malaysia and also in Indonesia. Demand is increasing and people are putting up capacity as there is a need for more natural products." The company balances its global operations by concentrating design and R&D at its European base and then undertaking procurement and execution at its local operations. Mr. Khoo sees this local presence as crucial to their success: "The investors are mainly local here, so you have to be here to be close to them. To have a strong presence locally is a very important factor for future development."

Ivo Bols, Vice President and General Manager, Merchant Gases-Asia for Air Products also sees strong opportunities in this sector going forward: "The companies operating in oleochemicals here are mostly from a plantation background that had alliances with international chemical companies. They have worked out where their niche is and what their added value is very quickly. As a core business it has a stable trajectory due to the diversification of products and customers and the fact that the finished products travel well."

GOING DOWNSTREAM

Due to the land bank limitation on palm oil, in order for the business to grow in Malaysia the industry has invested heavily in downstream operations. "There needs to be more processing, more value added activities undertaken here so that there is higher export value and more income for the country and the people," says Datuk Jalilah Baba, Director General of MIDA.

The industry is highly vertically integrated in Malaysia, as nearly all of the major plantation owners have seen the advantage of downstream operations. "We went into manufacturing as a form of palm oil price hedge. When the raw materials go up, the plantation side is more profitable. When the price of raw material goes down, the manufacturing operation becomes more profitable," explains Mr. AK Yeow, Managing Director, KLK Oleo.

KLK Oleo Group is part of Kuala Lumpur Kepong Berhad. "We have built on a foundation of being a grower and processor of edible oil, and since adapted to the downstream market. That understanding of raw material market mechanisms has been a huge advantage," says Mr. Yeow.

IOI Group, are another palm plantation group that saw the downstream advantage early on. They handle 77 estates with a total plantation area of 158,649 hectares. Dato' Lee Yeow Chor, Group Executive Director, IOI Group says: "In the mid nineties the palm oil market was quite volatile and so, in order to create a natural hedge, we acquired Palmco, Malaysia's pioneer oleochemical company."

At the time, this company was a loss making enterprise, but due to the advantages of integration, went into profit after two years and has shown sustained profitability ever since. IOI Oleochemicals have since developed and diversified into a range of basic and specialty oleochemicals. It is the leading producer of vegetable oil-based fatty acids, with a 10% global market share.

According to Dato' Lee Yeow Chor, it was by taking advantage of the company's early entrance into the market that it has enjoyed such downstream success: "As a pioneer in this business, it has afforded us the luxury of establishing a reputation in the global market early on and the flexibility to select the markets which we wanted to venture into. In particular, this has given us better access to the premium markets in Japan, Korea and Europe." The company is now focusing on growing their presence in the booming consumption markets of China and India.

IFFCO Malaysia, an Emirates headquartered brand manager and distributor of food products and soaps, have also taken downstream integration to a new level in Malaysia. Their plant is the

Interview with Tan Sri Datuk Dr. Yusof Basiron, CEO, Malaysian Palm Oil Council

Could give us some background on the Malaysian Palm Oil Council in terms of its main mission and the objectives that you are currently following?

We are here to help promote the palm oil image and facilitate palm oil market penetration. We engage our stakeholders by disseminating market information and working with the industry to find solutions for any challenges we face.

We also work with The Malaysian Palm Oil Board to circulate and enhance the acceptance of the new technology, information or products that they generate through their R&D programs.

What would you describe as the main strengths that Malaysia has in terms of producing and exporting palm oil?

Of the total palm oil that Malaysia produces, 90% will be exported. We have been in the business for a long time and have a well established industry. People have come to trust us and to respect our commitment to supplying good quality palm products. We have a "brand" of Malaysian palm oil that people choose as their preferred source. I think it is the best there is in the world of palm oils and fats. Palm oil from Malaysia has an assured quality backed by law and a quality control system at all levels of production and export. This is the differentiating factor that separates us from other sources.

Given that the amount of land that can be allocated to plantation is now limited, what do you think is the best way for your industry to grow?

We have a few options. We recognize our need to balance our land use and land allocation. We have pledged to keep at least 50% as permanent forest for conservation purposes. That is making it less possible for us to be land dependent. Based on our research capability I think that we can continue to improve productivity, which could double current output without really increasing planted areas.

We can also increase vertical integration, and not just the downstream. If land is the formula for success, we can also participate in other countries where they have ample agricultural land for oil palm to be planted.

Palm oil is suffering from negative perception of its sustainability. How would you address those concerns?

I think that these issues are over-exaggerated and demonize palm oil to an extent. The issue of deforestation and loss of habitat is totally unfounded because we have committed to conserve our forest. The issue of global warming contributed by deforestation due to palm oil is not borne by any scientific facts at all. Palm oil is actually helping to mitigate global warming as it provides tree cover and absorbs carbon dioxide. The whole country is a net sequester of carbon dioxide rather than carbon emitter, unlike most developed countries.

How important is the oleochemical industry to Malaysian palm oil producers?

Malaysia is one of the leading countries in oleochemicals. We are currently supplying more than 20% of the world's oleochemical raw materials and are becoming a reference point and preferred partner for people who want to build oleochemical operations. I think the industry is here to stay and we will enhance its contribution to the economy, both upstream and downstream, in whatever way we can.

We feel that palm oil's role in developing and supplying raw materials for the oleochemical industry should continue and become even more prominent in the future. Oleochemicals consume around two million tons of our products each year.

We hope to be entrusted to become more dominant as a raw material supplier because palm is the most convenient, productive and competitive raw material to meet this new demand.

In Malaysia, you can make use of the world's best production and processing location, take advantage of our cost competitiveness and easily export the product to the main consumption markets.

Having the expertise and technology involved in production, processing and oleochemical development, I'm sure Malaysia will continue to play a dominant role in the oleochemical industry.

only facility that has the capacity to take in a vegetable oil and take out 2,500 tons per month of fully packaged and branded soap bars. "It is a fully integrated oleochemical and soap plant. We integrated to get control of raw material and quality," explains Manish Bhoopal, General Manager, IFFCO Malaysia.

The majority of soap bars from this facility are exported across the world. Mr. Bhoopal states that Malaysia was chosen for this facility because of the proximity of raw material and the fact that it is an international transport hub.

The food industry also represents a downstream opportunity for local manufacturers. Danisco is a world leader in food ingredients, enzymes and bio-based solutions with a long history of sourcing palm oil from Malaysia where they also manufacture a large variety of products that are exported globally. "Malaysia is a strategically important site for Danisco. Our competitors are here and oleochemical based ingredient manufacturing in Malaysia is definitely growing," says Tim Kirk, Global Supply Chain Director, Danisco Malaysia.

Although 95% of products manufactured are exported globally, Mr. Kirk finds the country an excellent location to undertake operations. "We've been able to make this site offer everything. We are both cost competitive and versatile," he says "It's close to raw material, has a good labor source and you find people here that know what they are talking about. We've been here 19 years and have built the culture that our company requires. On paper it couldn't make more sense as a manufacturing base."

There is also the opportunity to utilize the available range of petrochemical products for the manufacture of higher value-added products such as surfactants and washing preparations. "The idea is to establish a green chemical hub, where Malaysia's petrochemical and oleochemical resources can combine to create products that rely upon both for various components," says Dato' Lee Yeow Chor of IOI Group.

Mr. Tan Kean Hua, Chairman of MOMG explains: "Due to the commitment to limiting the land available for palm plantation, Malaysian palm oil output is limited to around 60 mill tons. At present we only go one or two steps down the oleochemical value chain. We need to be looking at the third or fourth steps down that chain in order to maximize our resource."

One company that is bucking this trend is Southern Acids, one of the earliest investors in oleochemical production. Group General Manager Leong Kian Ming, a relative new comer to the oleochemicals scene, brought in to re-invigorate the company, states: "Basic oleochemicals are our core strength. That's what we do best and that's what we will keep doing". When questioned on how the company will grow, if not down-steam, he robustly responds: "I'm very confident when I say India and China will be core areas of growth in the future. If we look at the key driver of the oleo-chemical industry, demand from the end user which is growing and growing in these two countries."

SHIFT OF POWER TO THE ASEAN

The global oleochemical market used to be dominated by prominent western producers of basic oleochemicals. The fast development of oleochemicals production capacity in ASEAN, with its strong raw material integration, has caused a drastic reorganization in the global oleochemicals scenario.

Pacific Oleochemicals was established in 1980 and was among the sector's pioneers. From 1987 the company was operated as a joint venture between Akzo Nobel and Lam Soon Group, until Akzo Nobel divested in 2006. "We enjoyed 20 good years with Akzo Nobel and gained a lot from the international culture they instilled. The benefit is now that we operate like an MNC, such as incorporating their systems like HSE. Since the Akzo Nobel divestment we have made impressive growth in our customer base," says Mr. GC Tan, Managing Director of Pacific Oleochemicals.

The company is situated in the south of Malaysia, and Mr. Tan feels it to be an excellent location to undertake oleochemical manufacturing: "For the past ten years, whenever we have considered expansion we have analyzed other locations, including Indonesia and China. But, after completing evaluation we have always decided it best to add to the existing operations. In this way we can capitalize on the human resource that we have developed here as well as the proximity to our raw materials. We are served by three ports, if you include Singapore, the closest being just five minutes away."

The oleochemical sector has presented opportunities for private sector intra-regional collaboration in the ASEAN. Although global in its operations, Emery Oleochemicals takes pride from its regional ownership. It is a 50/50 joint venture between PTT Chemicals, a subsidiary of the Thai state-owned petroleum firm PTT Plc., and Sime Darby Bhd, a Malaysian conglomerate and plantation giant. "PTT Chemical is strong in downstream chemicals and Sime Darby are the number one palm producer in the world. Where it intersects is the natural based chemicals. Both parents have clearly stated that they want to grow their natural based chemical business through Emery," explains Dr. Kongkrapan Intarajang, CEO, Emery Oleochemicals.

Emery Oleochemicals consider their Malaysian manufacturing base as key to remaining globally competitive. Production is spread fairly evenly between production sites in Malaysia, USA and Europe. "In Europe and the US we focus on specialties, whilst in Asia it's natural for plantations to focus more on basic oleochemicals due to the feedstock advantages. Having a strong foundation in basic oleochemical is very important to grow and create synergies that will make our specialties more competitive. The advantage of specialties is that it leaves the company less exposed to economic and commodity volatility," Dr. Kongkrapan continues. "Looking at our five year plan, we want to at least double our business and be considered the number one oleochemical company in the world. This is quite an ambitious plan that includes growth of both the basic oleochemicals and specialties. The benchmark has to be very clear. It is not just size or revenue that matters, but how we are perceived by the customer and the market. If customers have the choice they must to prefer to business with us," insists Dr. Kongkrapan.

Mr. GC Tan, Managing Director of Pacific Oleochemicals

Another example of international partnership between a plantation major and more downstream specialist is Felda IFFCO. This is a joint venture between Felda, the government's agricultural development body, and IFCCO, the aforementioned Middle Eastern food company that brings technological and marketing capabilities. Ras Manikkam, Regional Managing Director – Asia Pacific, of Felda IFFCO Asia Pacific explains how the relationship began with a palm oil distillery in Port Klang: "We took a loss making operation into profit within twelve months and, after running that for two years, it gave the JV partners confidence that we can do better and expand this model into other markets. We are now working together on nine other joint ventures in Indonesia, China, Africa, Australia, Turkey and Latin America."

CHALLENGES

Despite the nation's rich oil and gas resources, the oleochemical industry is facing some limitations. "The key challenge facing our members in the desire to move downstream is natural gas supply. Guaranteed medium to long term gas supply is essential to produce more downstream chemicals, but getting extra supply for manufacturing expansion or downstream development is very difficult," Mr. Tan Kean Hua, Chairman of MOMG explains. Mr. GC Tan of Pacific Oleochemicals concurs: "Energy is the most important variable cost after raw material. The domestic industry uses only 12% of the total gas produced in Malaysia, whilst the majority goes to Independent Power Producers or is assigned to long term export contracts. We hope that the renewal contracts with IPPs and other nations can be amended so that more gas can be committed to industrial growth here." Despite these challenges, Mr. Tan Kean Hua, Chairman of MOMG, has optimism for the future: "We are poised for growth. The palm oil and oleochemical sectors are extremely important in terms of the Malaysian growth strategy. It's a renewable resource that is in line with global warming concerns. It's such a beautiful raw material we have. It's really the golden oil for Malaysia and we need to support this industry.'

SPECIALTY CHEMICALS

Mr. Teoh Weng Chai, Executive Director of Worldwide Resins & Chemicals (WWRC)

The demand growth for chemicals, both commodity grade and specialty, in Malaysia is evidenced not only by the investment in manufacturing operations, but also by the existence of sophisticated marketing networks of both local experts and major international players. The numerous international and local companies that operate in this field see various opportunities and have applied a range of strategies in order to take greatest advantage and provide the optimum service to customers.

Bayer Co. is well known internationally as a leading provider of chemicals and pharmaceuticals. All the company's operational subgroups (material science, health care and crop science) are marketed in Malaysia, but here Bayer MaterialScience is represented through the Bayer Agency Business (BAB). In this way, Bayer used Malaysia as a test ground for a new business model for the company. "The underlying strategic intent behind BAB was to create a one-stop-shop trading platform. At the beginning it was very much Bayer focused and then opened to other principals to make the most of our infrastructure advantages. BAB can offer broader solutions and more integrated solutions of non-conflicting products. It's a unique situation and extends the product portfolio," says Herbert Dittmar, Managing Director, Bayer Co. Malaysia.

Koid Boon Han, Head of BAB Malaysia explains the broad markets that they cover: "Electronics is the number one export for Malaysia and represents close to 50% of our market segment. Our second biggest segment is automotive. Malaysia is actually a bigger automotive consumption base than Indonesia and Thailand. However, our business also covers everything from construction to water treatment to petrochemicals."

Merck, a global leader that traditionally occupies niche markets and focused on highly innovative products as a technology leader, established a small operation for selling and distributing their products in 1989. Now, 230 employees distribute the entire product portfolio of Merck, including pharmaceuticals, consumer healthcare and chemicals.

Justus Krause-Harder, Managing Director, Merck Malaysia sees an increase in chemical demand in two areas. "One area is anything to do with quality control within regulated industries, might it be pharmaceutical industry or food and beverage. We supply to these customers to enable them to do a thorough quality testing and analysis up to international regulatory standards. This is an area that is increasing as Malaysia develops as an exporting nation that needs to adhere to international rules and regulations," Mr. Krause-Harder explains.

In this field Mr. Krause-Harder sees particular opportunities in the local pharmaceutical industry, particularly in acting as a supplier to local pharmaceutical manufacturers. "Pharmaceuticals need to do quality testing, quality control, analysis and additionally require raw materials and ingredients for the production of pharmaceuticals," he explains. Another growth area highlighted by Merck is on the research side. "In bioresearch, we see funds being allocated by the government to establish local research and we are supporting that through our activities. We support such initiatives from the government to foster a broader base of local homegrown researchers and world-class research in this country," Mr. Krause-Harder adds.

Chemical Company of Malaysia Sdn (CCM) is a holding company principally engaged in the manufacture and marketing of fertilizers, chlor-alkili products and pharmaceutical and healthcare products. Trading is also a major part of their chemical business, CCM Chemicals, which covers a large spectrum of segments. "It is split into performance specialty chemical business and the industrial chemical business. The performance specialty chemical business covers electronic, biocide, polyurethane and quite a few other sections," explains Nazmi bin Sallehhudin, Director, CCM Chemicals.

CCM Chemicals is now keen to take its local expertise to a regional and then global level according to Nazmi bin Sallehhudin: "We know that we need to go global and one of the ways to be effective in the market is to be a regional operating unit instead of purely Malaysia focused. It benefits us in many ways. As Southeast Asia grows, we grow and we can learn at the same time."

DISTRIBUTION

Many local and international companies compete for the opportunity to distribute specialty chemicals within Malaysia and across the region. The market is served by a range of international names including Brenntag, Connell Brothers (CBC) and DKSH and a larger local community that includes Bayderm, EAC Industrial Ingredients, Suka, Rica Marketing and World Wide Resins and Chemicals (WWRC).

Brenntag AG, the global market leader in full-line chemical distribution, is aggressively growing its presence in this region. Henri Nejade, CEO of Brenntag's Asia Pacific Operations outlines the market: "Global distribution in the world today is US$110 billion. Brenntag are the number one by far and we have only 7% of the global market. Asia Pacific today is close to US$32 billion, nearly 30% of the market, which is huge but still very fragmented and local. We believe there's a need to consolidate the market quickly to respond to the market and the suppliers' needs, and so that we can develop an effective business model for global key accounts."

Although they are relatively new to this market, Brenntag leverage on the fact that their name is well known globally: "Our suppliers ask us to be present in different countries to develop the business because we are a successful business with them in Europe or even in the US." Henri Nejade explains.

Local players in this market emphasize the advantage of their in depth know-how of not only the infrastructural and transport links, but also the Malaysian business mindset and trading culture. Worldwide Resins & Chemicals Sdn Bhd is a distribution company with a focus on specialty chemicals that began operations in Malaysia in 1991 as an extension of the WWRC Group in Singapore. The group takes great pride in its Asian roots and coverage across the region. Teoh Weng Chai, Executive Director of Worldwide Resins & Chemicals highlight's the advantages that the group takes from its local origin and regional presence: "We are the only local group or local company that has a complete presence in Southeast Asia and greater China. We are local and we know the Asian culture of doing business"

Suka Chemicals Sdn Bhd was formed in 1990 and grew by expanding with the range of industries that they serve; which now includes coatings, plastics, food, pharmaceuticals and rubber. Mr. Khoo Heng Ah, Managing Director of Suka Chemicals points out: "Many of these industries are less known internationally and so major chemical producers in EU or US are not so familiar with their needs."

Through relationship building and a strong knowledge of the products that they market, Mr. Khoo sees a strong future for Suka Chemicals: "We focus on our customers and if they have any problem or want to develop a product for the future, the first people that they call is us because we have that strong relationship."

Mr. Khoo sees the greatest opportunities for his company via growth in partnership with fellow Malaysian SMEs: "International principles depend on us as a lot of SMEs are coming up fast and so principles rely on our in-depth knowledge of the local industry developments."

A further opportunity for distributors is the reputation that Malaysia is developing as a trans-shipment hub for both specialty and commodity chemicals. Singapore has traditionally dominated this service, but many players see the potential for south Malaysia to capitalize upon the limited land area that Singapore can dedicate to this industry. Vopak, the terminal operation specialist, acquired the 17 bank Pasir Gudang terminal which sits at the southern tip of Peninsular Malaysia.

Surizan Khalil, General Manager, Vopak Terminals Pasir Gudang is realistic about the challenge that they face in establishing this industry and yet optimistic about the opportunity this represents: "In certain ways, we cannot compete with Singapore in terms of some efficiency and the advantage of being well known. But we want to take advantage of what we can offer, such as the competitiveness of our ports rate and storage rate which we can offer to customers. At the same time, it takes some time for it to be noted that we can provide a service equal to Singapore. But we are not only competing with Singapore but also complementing what they have."

RUBBER GLOVES

One of Malaysia's key natural resources that lends itself to chemical demand is in the manufacturing of rubber products, such as gloves. Despite no longer being the world's top exporter of natural rubber, Malaysia has maintained its status as the number one rubber glove manufacturer. During the financial crisis, this sector proved itself resilient as demand for rubber gloves grew steadily in 2008/2009. This represents a huge opportunity for chemical producers and distributors in coatings, pigments and other associated needs.

One of the leaders and pioneers of Malaysia's rubber glove industry is Lim Kuang Sia, the founder and CEO of Kossan Industries.

Regarded as one of Malaysia's most successful entrepreneurs, he established his company in 1979 and since 2002 his company has achieved a compound growth of 30%. He attributes a large part of that success to his chemical background and the importance that he places on the chemical advancement of the company: "The chemicals that we use and our understanding of them are very important to the success of our business. If you are able to explain each chemical process and why it happens, you can gain a true understanding of your products and production processes."

Dato Lim Kuang Sia, CEO and Managing Director of Kossan Rubber Industries

Mr. Lim Kuang Sia also sees the value in investing in quality chemical products for his process: "For some people, the first consideration is the price of a chemical. I look at what benefits a chemical can bring to my company and how it can create value. We don't believe in jumping between suppliers all the time to achieve slight price benefits. We want our customers to consider us an anchor supplier. This is key to achieving an edge over my competitors," he says.

John Arrol, Managing Director of Connell Brothers Malaysia, the Pacific Rim distribution specialist, sees great potential in rubber gloves: "Last year was good for rubber gloves. Whilst many industries were reeling, surgical and inspection gloves grew by 5-10% and we are expecting a similar growth again this year."

This industry has huge potential for specialty chemical demand. "We supply raw materials into their industry and work with our suppliers to reformulate and keep improving and optimizing the use of their materials," Arrol continues.

Mr. Wong Siew Yap, Managing Director, MOX-Linde Gases and Chairman, Malaysian Industrial Gas Manufacturers Association (MIGMA)

INDUSTRIAL GAS

As the Malaysian economy has developed from an agricultural base to its current more industrialized state, it has attracted many high tech manufacturing industries that continue to demand quality industrial gas products. Industries such as electronics, silicon wafers and solar cells require more consistently purified and mixed gases for their production and fabrication processes.

The Malaysian industrial gas sector has recently become increasingly competitive as the major international players and local competitors vie for market share.

This market had been traditionally dominated by a sole player. MOL (Malaysian Oxygen Limited, a BOC company) was incorporated in 1960 and merged with an Air Liquide company to become MOX in 1979.

In 2007, this partnership was broken up as the company was successfully acquired by the Linde Group. "We are currently celebrating the 50th year of incorporation. MOX Linde is very proud of the fact that the company has been the market leader from the very beginning and has grown with the development of the country and its industries," explains Wong Siew Yap, Managing Director, MOX-Linde Gases as well as the Chairman of the Malaysian Industrial Gas Manufacturers Association (MIGMA)

"We consider ourselves as having the most robust supply and service reliability in the country as a result of the infrastructure and continuing investments built up over the last 50 years," Wong Siew Yap continues.

"The takeover has been a great success story for Linde Group, but we will continue to transform ourselves into a better organization. Despite our market share, we acknowledge and respect the competition here and cannot be complacent. We continue to invest in facilities that not only cater for future expansion but that also enhances the robustness of our whole supply stream."

Since divesting from MOX, Air Liquide is now fully focused on reentering this market under their own banner. "Following the split, Air Liquide knew that they had to come back into this market due to the growth rates of industrial gas," explains Soh Tong Hwa, Managing Director of Air Liquide Malaysia.

"Our first significant contract is with Petronas for a large oxygen facility. As an anchor customer, that gives us a golden opportunity to establish a base in Malaysia." Having just reentered the market in 2007, Soh Tong Hwa is keen to quickly establish a reputation as a "very strong player in the market".

Air Products entered this market in 1988 through a local joint venture, which they took full control of in 2007. Today they hold the number two position for industrial gases with a 22% market share.

Ivo Bols, VP Merchant Gases Asia and Regional Executive, Air Products has no illusion about the challenge that the company faces: "Air Products are relatively new to this market, but we've got a good track record as an entering challenger. Our advantage has been that we have started and grown with a local partner. We target strong market shares in the growth segments of the market. For example, we are well known as a preferred hydrogen supplier, which is used in the domestic oleochemical industry."

A local player in this industry is BIG Industrial Gas Sdn Bhd, which has 28 years in operation and is Sarawak's largest supplier of industrial gas. Philip Yong, General Manager, BIG Industrial Gas Sdn Bhd. explains their niche in the market: "The large MNCs that operate here are not focused on the small companies that only require small volumes. We take pride in supporting up and coming local enterprises so that they can grow, particularly in high-tech industries where we can also supply innovative products such as mixed, specialty or purified gases."

Kertih Terminals, operated in joint venture between Petronas, Vopak and Dialog Group, plays a key role on the complex's logistical efficiency

PAINTS

The decorative paint market is worth RM1.1 billion and is a sector where international players compete furiously for the Malaysian consumer. You cannot drive very far down Malaysia's highways without being exposed to a billboard from one of the major manufacturers. The country has 35 listed paint manufacturers, many of them subsidiaries or regional offices of multinational companies.

ICI Paints Malaysia was formed in 1959, and became a part of AkzoNobel during the acquisition of ICI Paints in 2008. AkzoNobel is the world's largest paint and coatings company, but lacked a presence in Malaysia before this acquisition. Jeremy Rowe, Managing Director Southeast Asia & Pacific (SEAP) for AkzoNobel Decorative Paints says: "Malaysia has always been at the heart of ICI's business. With the integration of ICI and AkzoNobel, our Malaysian operations can leverage off the global capabilities of being the world's biggest. We can draw from resources around the world."

This view is shared by Goh Cheok Weng, Managing Director of ICI Paints (Malaysia): "Overnight we became a much larger organization with a lot of best practices that we can leverage on and that really helps a lot because customers today want a one-stop-center. They would prefer to see a company or a team representing all the things that they want. We're working together with all of our Akzo Nobel colleagues, giving a one-face and one-team approach to developers and customers."

Nippon Paint operates four manufacturing plants in Malaysia that collectively produce 84 million liters. It plans next year to invest about RM40 million for extension work at its Shah Alam plant. Yaw Seng Heng, Managing Director of Nippon Paint Malaysia predicts 6-7% p.a. growth in the market and plans to maintain their position. "Innovation is key in this market as the consumer is very selective, which causes the industry to continuously launch new products in line with the consumer's environmental and quality requirements."

As paint products increase in complexity, the need for high quality chemical ingredients also becomes more important. "We mainly source our raw materials from a range of international suppliers such as BASF, Bayer and Dow. Due to our long history in this industry we have built excellent relationships with these companies that allow us an advantage in developing new products," Yaw Seng Heng explains.

One key raw material in paint production is the pigment titanium dioxide. All of the world's major titanium dioxide manufacturers have operations in the region, but the nation's only domestic facility is operated by Huntsman. Daryl Wood, Commercial Director, Huntsman Pigments, Asia Pacific, sees long term opportunities: "It is a market driven by consumer demand and the improvements that people are making to their lifestyles. As the population in and around Malaysia move to higher income levels, we see continued demand growth".

Peder Bohlin, Jotun Malaysia Managing Director and Regional Director for Southeast Asia Jotun, also sees great potential in this market: "There is a correlation between GDP growth and paint consumption. In Singapore paint consumption per capita is around US$15, while in Malaysia is US$5, and so based on the continued economic development here we see great upside."

Jotun Group plan to make Malaysia the regional manufacturing hub for its advanced product lines. The company has decided to replace its Singaporean manufacturing operations with a service centre and build a new 40 million liter manufacturing plant in Malaysia, to be opened in March 2011, and combine with the current 50 million liter Malaysian facility to supply both the Singaporean and Malaysian markets.

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CONCLUSION

The Malaysian chemical industry boasts world-renowned petrochemical and oleochemical industries. As we have seen, the country has built upon its natural resources and strategic trading location to develop industries that will support its population in their drive towards high income lifestyles.

Many overseas investors see further potential for this market based on the favorable economic developments in the region and the demand growth linked with continued income gains among the domestic population.

"With the new economic policy, the government has recognized their shortfalls and very much owned up to any problems," explains Herbert Dittmar, Managing Director, Bayer Co. "Everything is not perfect in Malaysia, but the important thing is that the Government is open. They are addressing their issues head-on and, from a corporate point of view, that gives me a lot of confidence and the ability to recommend Malaysia for further investment," he continues.

"Malaysia is at an interesting moment and it is in a great position to supply China and the Asian countries that represent future growth. Compared to where it was ten years ago, there has been an incredible change. There's been a huge focus on quality and compliance and it's been right across all industries. I'm very optimistic about the future here. The Government has created a good platform for local companies and MNCs. That platform will encourage Malaysia to become a strong base for manufacturing and export across the world," agrees John Arrol, Managing Director of Connell Brothers Malaysia.

As competition in petrochemicals grows from the Middle East and Malaysia's ASEAN neighbors become more advanced in their oleochemical operations, Malaysia must focus on its strengths to retain its competitive advantages. Despite these challenges, it is clear that the Malaysian market offers abundant opportunities in a variety of avenues for chemical manufacturers, distributors and service providers.

Tan Sri Dato' Dr. James Alfred, Co-Chairman of the PKFZ Executive Committee and Chairman of Federation of Malaysian Manufacturers, Selangor Branch, agrees that the country is on the right path and encourages the government to remain open to foreign investors: "We must become market-driven in order to sustain our growth and clean up any inefficiency that exists in the public and private sectors. This way, I think we will be recognized as a developed nation even before 2020."

GBR would like to thank:

Ministry of International Trade and Industry

Chemical Industries Council of Malaysia

Federation of Malaysian Manufacturers

Malaysian Industrial Development Agency

Malaysian Palm Oil Council

Petronas