

**ERIA Discussion Paper Series**

**AEC Scorecard Phase IV: Furthering the  
Implementation of the AEC Blueprint Measures  
The Singapore Country Report\***

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**Abstract:** *Singapore is an open economy that is critically dependent on leveraging external resources to achieve its economic growth. To achieve that objective, the government is strongly committed to maintaining a free and competitive economy.*

*In the case of service liberalisation, however, there are a number of restrictions on foreign labour in the service sectors under review that may have an adverse impact on the service sectors. Nonetheless, Singapore is ready to integrate fully into the Association of Southeast Asian Nations (ASEAN) Economic Community (AEC) with most of the service sectors meeting or exceeding the requirements set forth by ASEAN Member States (AMSs), even in the financial, banking, and telecommunication sectors. On Standards and Conformance, there has been some progress for the five sectors under review. However, the progress is described as slow due to sluggish process undertaken by other AMSs. Singapore's approach is to adopt and directly use international standards and technical standards for most sectors, which puts it in a good position to align itself with the agreed ASEAN standards. With regard to the five sectors under review, Singapore has transposed most ASEAN guidelines on Standards and Conformance into national legislation.*

*A considerable progress has been observed in architectural and engineering services as the implementation mechanisms and processes at both regional and national levels have been established. Regarding this sector, Singapore has generally maintained a liberal immigration policy on professional mobility until recent years. In future, this liberal policy on professional mobility might be adjusted due to increasing domestic political pressure to restrict the inflow of foreign labour. While substantial progress has been made, there is still room to accelerate efforts towards regional integration and facilitation of professional service mobility by prioritising and establishing a template for other designated professions.*

*On Non-Tariff Measures (NTMs), Singapore is ranked highly as a liberalised trading economy, as there were no divergences between the agreed regulations on non-tariff measures and the actual practice in Singapore, nor is there any bottleneck in implementing non-tariff measures. There is a prevalent understanding and impression that the NTMs are centred on technical barriers to trade, rather than sanitary and phytosanitary measures or non-automatic licensing, quotas, prohibition.*

*On the ASEAN Comprehensive Investment Agreement (ACIA), the Singapore government has been quite positive in its public statements. In drafting the Reservation List, the government looked to its existing national rules and regulations as its basis. As such, Singapore's Exclusive List document extensively cited the sources of legislation. It is noted in the study that Singapore does not experience any problems in implementing the ACIA agreement as its Reservation List is one of the shortest amongst those submitted by AMSs.*

**Keywords:** services and investment liberalisation, non-tariff measures (NTM)

**JEL Classification:** F15

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## **1. Introduction**

The objective of the AEC Scorecard Phase IV is to provide updates of the scores reported by the Economic Research Institute for ASEAN and East Asia (ERIA) Scorecard Phase I and II in selected key areas in each ASEAN Member State (AMS). The methodology used is to review the relevant documents and engage in intensive consultations and discussions with officials and the private sector. Surveys and questionnaires were also used to identify the progress and bottlenecks in the implementation of the AEC blueprint. In the process of undertaking this study, it is expected that individual AMS will specifically identify implementation problems and bottlenecks with a view to generating policy recommendations arising from discussions and focus group discussions (FGD) with stakeholders for AEC 2015, and the AEC Blueprint Post 2015.

Key areas for the study include services liberalisation, Standards and Conformance, Mutually Recognized Agreements (MRAs) in professional services, Non-tariff Measures (NTMs) in Singapore and ASEAN Comprehensive Investment Agreement (ACIA) and the Singapore Exclusion List to update the score for the most recent ASEAN Framework Agreement on Services (AFAS) package using sectoral weights. The Singapore Institute of International Affairs (SIIA) research team has conducted consultations with government, business, and other stakeholders on the implementation bottlenecks and how they were managed and addressed. The results of this updating review and study on those topics are provided in detail in the relevant chapters.

Basically, Singapore has undertaken the agreed commitments on those chapters under the AEC Scorecard Phase IV. There are issues on MRAs in professional services, NTMs, and ACIAs that are yet to be finalised, pending approvals and further commitments from other AMSs. The agreements and implementation are consistent and in line with Singapore's national interest, as its economy is externally driven and based on open economy.

It is hoped that through this AEC Scorecard Phase IV, the implementation of the AEC Blueprint at the end of 2015 would contribute towards competitive, equitable, and globally connected ASEAN economies.

## **2. Sectoral Service Liberalisation**

The small size of Singapore's domestic economy necessitates that the island state employs a predominantly open investment regime. Therefore, foreign investments underpin Singapore's open and trade-reliant economy. The Singapore government is strongly committed to maintaining a free market, but also takes an active role in planning the country's economic development. The government regularly takes the leadership role as both an investor and catalyst for development through government-linked corporations.

The regulatory framework and government policies of Singapore are generally favourable towards foreign investors, who are not required to enter into joint ventures or cede management control to local interests. Furthermore, local and foreign investors are subject to the same basic laws. Apart from regulatory requirements in some sectors, the government screens investment proposals only to determine the quality and suitability of applicants and their eligibility for various incentive regimes.

There are few restrictions on foreign labour mobility in the service sectors under review, as long as regulatory requirements regarding manpower are met. But overcrowding and strains on public infrastructure led to public discontent directed at the government's liberal foreign labour laws. Following the general election in 2011, in which an opposition party won a Group Representative Constituency (GRC) for the first time in Singapore's electoral history, the government acted quickly on several issues, including limiting foreign labour inflows.

Nonetheless, Singapore is ready to integrate into the ASEAN Economic Community with most of the services sectors meeting (or exceeding) the requirements for integration.

### **2.1. Banking Services**

#### *2.1.1. Update*

It appears that the unofficial restriction on new full and wholesale banking licences has been relaxed under certain conditions. The Monetary Authority of Singapore (MAS) commented that it will continue to grant new Qualifying Full

Banks (QFBs) only under a free trade agreement.<sup>1</sup> In addition, the monetary authority asserted that a new QFB is required to establish subsidiaries. On wholesale banking licences, EFG bank, a Swiss private bank, obtained a wholesale banking licence in March 2014.<sup>2</sup> Meanwhile, the information on the MAS website on Bank Licensing only has licence application for wholesale banks, offshore banks, and merchant banks.<sup>3</sup> Moreover, foreign branches are now allowed to also lend against local capital. Previously they could only lend against parent capital.

### *2.1.2. Regulatory framework*

The MAS regulates and supervises the financial sector, including banking services. Banks are primarily governed by the Banking Act and subsidiary legislation along with various notices, circulars, and guidelines issued by the monetary authority. Commercial banks in Singapore operate as full banks, wholesale banks, or offshore banks, depending on the type of bank licence they obtained from the MAS. Both local and foreign banks may hold full banking licences although foreign full banks are subject to restrictions on the number and location of their branches and ATMs in Singapore. The QFB scheme introduced in 1999, however, allows foreign banks that have been granted QFB privileges to operate more branches, share ATMs, and relocate their sub-branches freely. The MAS announced changes to its QFB scheme in June 2012, requiring existing QFBs that are important to the domestic markets to locally incorporate their retail operations.

### *2.1.3. Macroeconomic policies*

Singapore continues to retain its free capital mobility for both the short- and long-term horizons due to its status as an international financial hub as well as the openness of its economy. However, to defend the domestic economy against destabilising speculative flows, the MAS, the country's de facto central bank, adopted the use of the exchange rate as a benchmark policy instrument, which gives rise to the policy of non-internationalisation of the Singapore dollar as a rather limited form of

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<sup>1</sup> MAS Announces Changes to the Qualifying Full Bank Programme, <http://www.mas.gov.sg/news-and-publications/press-releases/2012/mas-announces-changes-to-the-qualifying-full-bank-programme.aspx>

<sup>2</sup> EFG Bank gets wholesale banking licence in S'pore, <http://business.asiaone.com/news/efg-bank-gets-wholesale-banking-licence-spore>

<sup>3</sup> MAS Regulations and Financial Stability, <http://www.mas.gov.sg/Regulations-and-Financial-Stability/Regulations-Guidance-and-Licensing/Commercial-Banks/Bank-Licensing.aspx>

capital control. The non-internationalisation policy was codified in MAS Notice 621, whereby access to the Singapore dollar was restricted for both residents and non-residents.

That said, restrictions have been progressively relaxed since 1998 and there is no longer a non-internationalisation policy per se. The policy was reduced to a lending restriction, now known as MAS' policy on lending Singapore dollars to non-resident financial institutions.

#### *2.1.4. Foreign ownership restrictions*

Since 1999, the Singapore government has removed the 40 percent ceiling on foreign ownership of banks incorporated in Singapore. That said, Section 14 of the Banking Act states that 'a bank incorporated in Singapore shall not be merged or consolidated with, or be taken over by, any other body corporate or unincorporated without the written approval of the Minister.'

There is no restriction on foreign ownership of financial institutions. They are allowed full equity ownership.

#### *2.1.5. Licensing Framework*

The MAS regulates entry of new banks through a licensing policy under which it retains discretionary power to decide on the approval of banking licences. Foreign banks are subject to the same licensing requirements as domestic banks. In addition, the MAS adopts an exchange rate monetary policy mechanism and does not directly regulate interest rates. The prime and deposit rates are determined by banks based on their cost of funds, plus a spread to cover credit risks, operating expenses, and a desired return on shareholders' funds.<sup>4</sup> Although there is no need for approval by the authorities, all banks must notify the MAS in advance of any changes in their prime rates.

Foreign banks in Singapore mainly operate as branches rather than subsidiaries. They represent about 65 percent of total banking assets, with European and United States (US) foreign banks having the largest presence. As of 20 May 2014, there were a total of 127 commercial banks, of which five are local banks and 122 are foreign

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<sup>4</sup> ABS (Rates and Charges), [http://www.abs.org.sg/financial\\_faq\\_rates.php](http://www.abs.org.sg/financial_faq_rates.php)

banks.<sup>5</sup> There are 28 foreign full banks, 56 foreign wholesale banks, and 38 foreign offshore banks. Foreign banks are able to establish subsidiaries, branches, or representative offices, depending on the type of banking licence they hold.

The restrictions on the ability of commercial banks to raise funds and lend remain relatively similar, and conditional on prudential measures. However, MAS has tightened rules on retail property loans to curb speculation in the real estate sector. In June 2013, the government unveiled an eighth round of measures in about four years to rein in rising property prices, which includes a requirement that lenders take a borrower's debt into consideration when deciding on granting property loans.

Besides commercial banking services, commercial banks in Singapore may carry out any other business activities that are regulated or authorised by MAS, including financial advisory services, insurance broking, and capital market services (equity, debt, foreign exchange). But they are prohibited from engaging in non-financial activities such as real estate business. Section 30 of the Banking Act defines the permissible activities.

On clearing and settlement services, Section 59 of the Banking Act allows MAS, in conjunction with the banks and other financial institutions, to establish a clearing house to facilitate the clearing of cheques and other credit instruments and regulate its operations.<sup>6</sup> As such, the Singapore Clearing House Association (SCHA), was formed in December 1980, to establish, manage, and administer clearing services and facilities for cheques as well as debit and credit items of its members. It comprises MAS and the commercial banks in Singapore that wish to become members. Banks are currently the only institutions that may offer services across all segments of the payment process chain (issuing, acquiring, processing, clearing, and settlement). But new non-bank payment service providers are expected to play a greater role in future.<sup>7</sup>

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<sup>5</sup> Number of Financial Institutions and Relevant Organisations in Singapore, <https://secure.mas.gov.sg/fid/>

<sup>6</sup> Singapore Automated Clearing House, <http://www.mas.gov.sg/Singapore-Financial-Centre/Payment-and-Settlement-Systems/Clearing-and-Settlement-Systems/Singapore-Automated-Clearing-House.aspx>

<sup>7</sup> EMEAP Red Book, Singapore Chapter, <http://www.emeap.org/emeapdb/upload/WGMeeting/Payment,clearing%20and%20settlement%20systems%20in%20Singapore.pdf>

#### *2.1.6. Cross-border trade (Mode 1)*

Foreign banks located abroad are able to lend and raise funds in Singapore. They are able to apply for an offshore banking licence to transact any banking business with approved financial institutions and with persons that are not approved financial institutions, subject to various restrictions.<sup>8</sup> Most of the restrictions are related to Singapore dollar transactions. For example, if such persons are residents of Singapore, offshore banks will not be able to operate savings accounts or accept fixed deposits denominated in Singapore dollars.

#### *2.1.7. Movement of natural persons (Mode 4)*

Under the Banking (Corporate Governance) Regulations 2005, a bank incorporated in Singapore shall have a board of directors comprising, in the case of a foreign-owned bank, at least one-third of directors who are Singapore citizens or permanent residents or, in any other cases, at least a majority of directors who are Singapore citizens or permanent residents.

There is no residency or nationality requirement/quota for other categories of personnel employed by locally established or foreign-invested banks. Foreign employees are subject to labour regulations governed by the Ministry of Manpower. There is no labour market testing in Singapore, although the government has implemented a Fair Consideration Framework (FCF),<sup>9</sup> which is a tentative step towards encouraging firms to look for suitable Singaporeans and put in place fair employment practices. From 1 August 2014, firms submitting Employment Pass applications, including existing Employment Pass holders who are changing employers, are required to advertise the job vacancies on the national jobs banks administered by the Singapore Workforce Development Agency (WDA). The advertisement must be open to Singaporeans, comply with the Tripartite Guidelines on Fair Employment Practices, and run for or at least 14 calendar days.

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<sup>8</sup> Guidelines for Operation of Offshore Banks, [http://www.mas.gov.sg/~media/resource/legislation\\_guidelines/banks/guidelines/Offshore%20Banks%20Guidelines%20%208%20Jul%2008.pdf](http://www.mas.gov.sg/~media/resource/legislation_guidelines/banks/guidelines/Offshore%20Banks%20Guidelines%20%208%20Jul%2008.pdf)

<sup>9</sup> Fair Consideration Framework, <http://www.mom.gov.sg/employment-practices/fair-consideration-framework/Pages/fair-consideration-framework.aspx>

The Singapore authorities divided foreign workers who are not permanent residents into three classes for long-term employment in Singapore.<sup>10</sup> A Work Permit is issued to foreign unskilled workers, an S Pass is granted to mid-level skilled foreigners who earn a fixed monthly wage of at least S\$2,200, and an Employment Pass are is for foreign professionals who earn a fixed monthly salary of at least S\$3,300 and have acceptable qualifications. For the Employment Pass, renewal is once every one to two years and is mostly a simple process of updating personal information and paying the renewal fee.

However, there are only few options in terms of short-term visit passes for foreign bank personnel. The most suitable one may be the Training Employment Pass, which allows trainees from foreign offices or subsidiaries, earning a fixed monthly salary of at least S\$3,000, to train/work in Singapore for up to three months. This type of pass is non-renewable.

For work permit conditions and requirements for the service sector of which financial services are listed, services sector companies can recruit workers from the following countries or territories:<sup>11</sup>

- Malaysia
- People's Republic of China
- North Asian Sources (NAS): Hong Kong, Macau, South Korea, and Taiwan

Work permits are usually for unskilled foreigners.

#### *2.1.8. Recent developments*

Singapore's DBS Group announced on 31 July 2013 that it would no longer pursue a US\$7.2 billion takeover bid of Indonesia's PT Bank Danamon after the negotiations had got stuck. The deal was scuppered by Indonesia's central bank putting a 40 percent limit on foreign ownership of its banks, which would have made it difficult for DBS to integrate Danamon with its existing business in Indonesia. In June 2013, DBS extended its agreement for two months to buy 67.4 percent in Danamon after Bank Indonesia approved the deal, but capped the DBS stake at 40 percent.

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<sup>10</sup> Passes and Visas - <http://www.mom.gov.sg/foreign-manpower/passes-visas/Pages/default.aspx>

<sup>11</sup> Work Pass Conditions and Requirements for Services Sector - <http://www.mom.gov.sg/passes-and-permits/work-permit-for-foreign-worker/sector-specific-rules/services-sector-requirements>

In June 2012, MAS announced that existing QFBs that are important to the domestic market will be required to locally incorporate their retail operations, and provided additional benefits to such QFBs, including granting an additional 25 places of business of which 10 may be branches.

#### *2.1.9. Conclusion*

Despite Singapore's small market size, 124 commercial banks operate in the country, of which 28 are foreign banks with full banking privileges. The reputation of Singapore as a financial hub and its policy of welcoming foreign investment attract international and regional banks to establish their regional headquarters in the island-state. Singapore banks are also expanding their presence overseas, particularly in the region, and face various challenges, particularly of a regulatory kind. Foreign full banks still face some constraints operating in Singapore, in terms of customer services locations and access to the local ATM network, which local retail banks do not encounter.

## **2.2. Insurance Services**

#### *2.2.1. Update*

There are no changes compared with the previous study on the insurance services in Singapore in 2010. Similar to Singapore's banking sector, the insurance market was liberalised in 2000 when the MAS lifted the closed-door policy on direct insurers and the 49 percent foreign shareholding limit in locally owned insurers. The government's vision for Singapore's insurance industry to become a global marketplace by 2020, with the ability to not only accept regional risks but also global risks, means the sector is expected to continue being open to foreign players. According to the MAS, offshore insurance business has been on a steady upward trend since 2000, growing an average of 13 percent per year to US\$5.4 billion in 2012, whilst the share of offshore non-life business increased from 50 percent in 2000 to 65 percent in 2012. Moreover, major insurance groups have sited their regional headquarters in Singapore.

Singapore also plans to help catalyse the development of insurance demand in the region by adopting a three-pronged approach,<sup>12</sup> with the first approach being to enhance cross-border access to regional markets. The ASEAN economies are working together on a comprehensive insurance liberalisation framework to achieve substantial liberalisation by 2020 for all insurance sub-sectors.

#### *2.2.2. Regulatory Framework*

The MAS administers the Insurance Act (Cap 142), which governs the regulation of insurers, reinsurers, captive insurers, and insurance intermediaries in Singapore.

#### *2.2.3. Foreign ownership restrictions*

Both domestic and foreign insurers (including subsidiaries and branches) are permitted to conduct insurance business in Singapore, as long as they satisfy the relevant licensing requirements. However, in certain situations, for example, when there is a change of control (20 percent or more) or when a person becomes a substantial shareholder (5 percent or more), prior approval of the MAS must be obtained. Whilst the setting up of branches is legally permitted, the MAS prefer foreign insurers to be set up as subsidiaries.

#### *2.2.4. Licensing Framework*

Insurers and reinsurers with an establishment in Singapore must be licenced whilst reinsurers without an operating presence in the country may become 'authorised reinsurers' which will allow them to solicit business and collect premiums in Singapore. Marine, Aviation and Transit (MAT) insurers without any physical presence in Singapore may also be approved by under regulation 5 of the Insurance (Approved Marine, Aviation, and Transit Insurers) Regulations 2003 which allow approved MAT insurers to collect premiums, although they are unable to write insurance business.

The foreign insurer scheme permits foreign insurers that are approved under the law of another country/territory to write business, establish and maintain insurance funds and generally carry on business. Currently the Lloyd's Asia Scheme is the only foreign insurer scheme in Singapore.

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<sup>12</sup> 'Singapore as a Global Insurance Marketplace' - Keynote Address by Ravi Menon, Managing Director, Monetary Authority of Singapore, at 12th Singapore International Reinsurance Conference on 6 November 2013, <http://www.mas.gov.sg/news-and-publications/speeches-and-monetary-policy-statements/2013/singapore-as-a-global-insurance-marketplace.aspx>

Foreign-invested insurance companies are allowed to open subsidiaries, branches, and representative offices, and there are neither requirements nor restrictions to establish in a joint venture.

Under the Insurance (Valuation and Capital) Regulations 2004, minimum capital requirements for licenced insurers are as follows:

- Licenced insurer (life) – S\$5 million
- Licenced insurer (non-life) – S\$10 million
- Licenced reinsurers – S\$25 million
- Authorised reinsurers – S\$2 million for each class of reinsurance business for which it is authorised

In addition, the insurance fund established and maintained by a licenced insurer shall not be less than the aggregate of the total risk requirement of all insurance funds or from the assets and liabilities of the insurer that do not belong to any insurance fund. A minimum amount of S\$5 million is required.<sup>13</sup>

In June 2012, the MAS published a review on the risk-based capital framework for insurers in Singapore (RBC 2 Review). The review is the first since the introduction of the risk-based capital framework in 2004 and is aimed at improving risk coverage, amongst other things.<sup>14</sup>

#### *2.2.5. Labour Mobility*

Foreigners are subject to manpower regulations with regards to work permit. There are no specific restrictions on foreign personnel in the insurance sector.

#### *2.2.6. Conclusion*

Singapore's vision of becoming a global marketplace for insurance services by 2020 will drive the sector's development over the next five to six years. The first of its four strategies is to increase supply-side capacity in both volume and expertise, where the focus is on increasing the quality and diversity of underwriting expertise in

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<sup>13</sup> Insurance (Valuation and Capital) Regulations 2004, <http://statutes.agc.gov.sg/aol/search/display/view.w3p?page=0;query=DocId%3A566cf59c-ff0a-4da0-ae00-13a3bf6de222%20Depth%3A0%20Status%3Ainforce;rec=0;whole=yes>

<sup>14</sup> Review on Risk-Based Capital Framework for Insurers in Singapore ('RBC 2 Review') – Second Consultation, <http://www.mas.gov.sg/news-and-publications/consultation-paper/2014/rbc-2-review-second-consultation.aspx>

Singapore. This means that there are opportunities for foreign insurers with deep expertise in specific insurance sub-sectors to establish their presence in the country.

Foreign insurers with solid experience and a good reputation in their home countries or internationally are unlikely to meet many obstacles when seeking to set up shop in Singapore, given the pro-foreign investment stance taken by the Singapore government.

## **2.3. Health Services**

### *2.3.1. Update*

There are no changes compared with the previous study on health services in Singapore in 2010. As Singapore's population continues to age, with the number of elderly citizens (65 years of age or older) forecast to triple to 900,000 by 2030, there is greater urgency in promoting telemedicine to facilitate health service consultations for elderly patients with mobility restrictions. Telemedicine or remote patient monitoring systems will enable these patients to have tele-consultations with healthcare specialists, thereby avoiding unnecessary trips to the clinic.

### *2.3.2. Regulatory Framework*

The Ministry of Health (MOH) regulates the health services industry. The ministry also administers The Private Hospitals and Medical Clinics (PHMC) Act and its subsidiary regulations, which govern the administration and management of all private hospitals and clinical laboratories in Singapore. No premises may be used as medical clinics or related services without the licence under the PHMC Act.<sup>15</sup>

### *2.3.3. Foreign ownership restrictions*

There is no distinction between local or foreign-invested healthcare entities and there are no restrictions on incorporation for foreign health service providers. Foreign-invested firms are neither required nor restricted to enter into joint ventures with local partners or cede management control to local interests. Both local and foreign investors are subject to the same basic laws.

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<sup>15</sup> Private Hospitals and Medical Clinics Act,  
[https://elis.moh.gov.sg/elis/info.do?task=legislation&file=Reg\\_PHMC\\_Regulations.pdf](https://elis.moh.gov.sg/elis/info.do?task=legislation&file=Reg_PHMC_Regulations.pdf)

#### *2.3.4. Licensing Framework*

Under Section 5 of the PHMC Act, no premises or conveyance shall be used as a private hospital, medical clinic, clinical laboratory, or healthcare establishment except under the authority of, and in accordance with the terms and conditions of a licence issued by, the Director of Medical Services. In addition, there is no distinction between foreign corporate providers of health services and domestic firms – they are subject to the same licensing requirements.

#### *2.3.5. Labour mobility*

There is no nationality or residency requirement for the various categories of positions in foreign-invested health service firms, although certain healthcare workers need to be appropriately licenced to practise health services. For instance, to practise medicine in Singapore, all medical practitioners must be registered with the Singapore Medical Council and issued with a Practising Certificate. Registration of medical practitioners in Singapore is governed by the Medical Registration Act (Cap 174). To practise nursing or midwifery in Singapore, a person must be registered or enrolled with the Singapore Nursing Board (SNB) and possess a valid Practising Certificate, in compliance with the Nurses and Midwives Act (Chapter 209).

There are no labour market tests to determine if foreign intra-corporate transferees in each service area are allowed entry to work in Singapore. Again, the foreign transferees are subject to employment permit requirements. In addition, there is no explicit requirement for foreigners holding employment passes to be locally domiciled, although they usually do have a local residential address.

#### *2.3.6. Telemedicine*

Singapore has no national telemedicine policy,<sup>16</sup> although foreign health services providers have rendered telemedicine services to hospitals in Singapore. For example, the National Healthcare Group in Singapore has linked up with telemedicine institutions in India to provide teleradiology services to designated hospitals in Singapore.<sup>17</sup> That said, the Ministry of Health and the Infocomm Development Authority of Singapore (IDA) in 2012 called for collaboration with the industry to

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<sup>16</sup> World Health Organisation, <http://www.who.int/goe/publications/atlas/sgp.pdf>

<sup>17</sup> WTO Domestic Regulation and Services Trade: Putting Principles into Practice (2014), p.263.

develop new models of distance care for the elderly, assisted by information and communications technology (ICT).<sup>18</sup>

### 2.3.7. *Quality Assurance*

Health services providers are mandated under Section 11 of the PHMC Act to establish one or more quality assurance committees to –

- (a) Monitor and evaluate the quality and appropriateness of the services provided and the practices and procedures carried out at the prescribed healthcare institution.
- (b) Identify and resolve problems that may have arisen in connection with any service provided or any practice or procedure carried out at the prescribed healthcare institution.
- (c) Make recommendations to improve the quality of the services provided and the practices and procedures carried out at the prescribed healthcare institution.
- (d) Monitor the implementation of the recommendations made under paragraph (c).

All the restructured hospitals and majority of private hospitals in Singapore are JCI-accredited.<sup>19</sup> Joint Commission International (JCI) is a global organisation that identifies, measures, and shares best practices in quality and patient safety with the world.

On healthcare performance, the MOH has published performance indicators to encourage providers to disclose publicly their healthcare performance information. Meanwhile, various providers have highlighted specific accreditation and quality assurance on their websites. For example, the Pathology Laboratory Services at Singapore General Hospital (SGH) has published a list of local and international accreditation or certification programmes of the department's laboratories.<sup>20</sup>

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<sup>18</sup> Telehealth Call-for-Collaboration To Develop New Models of Distance Care for the Elderly, <http://www.ida.gov.sg/Collaboration-and-Initiatives/Collaboration-Opportunities/Store/Telehealth-CFC-To-Develop-New-Models-of-Distance-Care-for-the-Elderly>

<sup>19</sup> JCI-Accredited Organisations – SG, <http://www.jointcommissioninternational.org/about-jci/jci-accredited-organizations/?c=SG>

<sup>20</sup> SGH Quality Programmes, Certification and Accreditation, <http://www.sgh.com.sg/clinical-departments-centers/pathology/pathology-handbook/laboratory-policies-and-service-information/pages/quality-prog-cert-accred.aspx>

Ambulance service operators, however, are not obligated to provide performance or quality assurance. The industry is facing difficulties in hiring and retaining staff, a lack of standardised training, and a lack of regulation. A review of private ambulance services has been under way since mid-2011, conducted by the MOH and Ministry of Home Affairs.<sup>21</sup>

#### *2.3.8. Fees for Health Services*

Foreign providers of health services are not restricted in terms of their ability to charge international or local clients' fees. As all foreign providers of hospital services, medical laboratory services, and ambulance services need to be incorporated in Singapore, they qualify for any government subsidies or incentives for businesses.

The Ministry of Health provides a complete list of charges including doctors' fees for a comprehensive range of procedures at public hospitals.<sup>22</sup>

#### *2.3.9. Conclusion*

Similar to financial services, the Singapore government welcomes foreign investment in health services and has little or no regulatory restrictions in place other than prudential (licensing) requirements to ensure the quality and capability of the foreign health services provider. In fact, Singapore appears to be impartial in determining which health services providers are allowed to operate health service establishments, by applying the same requirement and standards to local and foreign firms alike.

## **2.4. Medical Professionals**

### *2.4.1. Update*

There are no changes compared with the previous study on the medical professional services in Singapore in 2010. As Singapore's population ages and the prevalence of chronic diseases increases, the Ministry of Health projected that it would need about 20,000 more healthcare professionals, including doctors, nurses, pharmacists, and allied health professionals by 2020, to cope with the increased healthcare demand. Senior Minister of State for Health Amy Khor said the ministry

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<sup>21</sup> Private Ambulance Services Under Review.

<http://www.healthxchange.com.sg/News/Pages/private-ambulance-services-review.aspx>

<sup>22</sup> [http://www.moh.gov.sg/content/moh\\_web/home/costs\\_and\\_financing/HospitalBillSize.html](http://www.moh.gov.sg/content/moh_web/home/costs_and_financing/HospitalBillSize.html)

will boost manpower capability in three ways – by attracting young Singaporeans, by growing new sources of manpower, and by topping up the workforce through foreign recruitment.<sup>23</sup>

#### 2.4.2. Regulatory Framework

The Ministry of Health is responsible for providing health information and raising health awareness and education alongside ensuring accessibility of health services. The ministry also monitors the quality of health services provided in Singapore. However, medical professionals are licenced under or registered with their respective professional bodies.

Healthcare Profession	Practice Body
Doctors	Singapore Medical Council
Dentists	Singapore Dental Council
Nurses and Midwives	Singapore Nursing Board
Pharmacists	Singapore Pharmacy Council
Allied Health Professionals <sup>24</sup>	Allied Health Professions Council
TCM <sup>25</sup> Practitioners	Traditional Chinese Medicine Practitioners Board

#### 2.4.3. Foreign ownership restrictions

There are no remaining restrictions on new entry of domestic or foreign-invested professional service firms or partnerships in each of the three medical professions – doctors, dentists, and paramedical professionals such as nurses. And neither are there

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<sup>23</sup> Health ministry needs 20,000 healthcare professionals by 2020. | Replying to MPs, Senior Minister of State for Health Amy Khor said as part of the Healthcare 2020 plan, the ministry has projected that it would need about 20,000 more healthcare professionals, including doctors, nurses, pharmacists and allied health professionals, between 2011 and 2020. On manpower capability, she said the ministry will do so in three ways - by attracting young Singaporeans, growing new sources of manpower and topping up our workforce with foreign recruitment. <http://www.channelnewsasia.com/news/specialreports/budget2014/videos/health-ministry-needs-20/1032648.html>

<sup>24</sup> Allied Health Professionals comprise diverse groups of healthcare professionals including Diagnostic Radiographers, Dietitians, Occupational Therapists, Physiotherapists, Podiatrists, Prosthetists and Orthotists, Radiation Therapists, Speech Therapists, Optometrists and Opticians, Audiologists, and Medical Social Workers.

<sup>25</sup> Traditional Chinese Medicine.

any requirements or restrictions relating to foreign professional service firms seeking joint ventures.

#### *2.4.4. Labour Mobility*

There are neither restrictions on new entry of individual professionals nor is there a nationality requirement to practice in each of the professions. As long as they satisfy the licensing requirements of the respective professional associations, they are permitted to practise in Singapore.

#### Doctors

There are four types of registration for doctors who wish to practise in Singapore:<sup>26</sup>

1. Provisional Registration
  - Allows a local/overseas-trained fresh medical graduate to be employed as a house officer in approved hospitals.
  
2. Conditional Registration
  - Allows an overseas-trained doctor (who has completed housemanship) to work in a healthcare establishment, under the supervision of a fully registered doctor.
  
3. Temporary Registration
  - Allows an overseas-trained doctor a short-term stay at a public hospital for teaching, research, or postgraduate study, conduct lectures, etc., as a visiting expert.
  
4. Full Registration
  - Allows a local/overseas-trained doctor (who has completed his housemanship) to practise on his own. (\*SMC requires an overseas-trained doctor to complete a specified period of conditional registration before he can be fully registered.)

Doctors who are trained overseas are referred to as international medical graduates. They must hold a degree from a university specified in the Second

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<sup>26</sup> Practising as a Doctor or Specialist,  
[http://www.moh.gov.sg/content/moh\\_web/healthprofessionalsportal/doctors/career\\_practice/professional\\_registration.html](http://www.moh.gov.sg/content/moh_web/healthprofessionalsportal/doctors/career_practice/professional_registration.html)

Schedule <sup>27</sup> of the MRA, or a registrable postgraduate medical qualification recognised by Singapore Medical Council (SMC), or exit specialist qualification recognised for specialist accreditation by the Specialists Accreditation Board (SAB), Singapore, or they may apply for conditional registration. Doctors who do not meet the criteria for conditional registration may apply for temporary registration,<sup>28</sup> subject to the existing criteria for temporary registration. In addition, to be eligible for medical registration, they must secure a job offer or hold an offer of a training position in a healthcare institution approved by SMC as well as having passed the national licensing examination as required in the country where the basic medical degree was conferred.<sup>29</sup>

Whilst there is no residency or local presence requirement for foreign doctors who are registered with the SMC, they are required to continue participating actively in Continuing Medical Education<sup>30</sup> (CME) if they wish to apply for a grant or renewal of practising certificate from SMC whilst overseas. This also applies to locally trained doctors who are residing overseas.

### Dentists

There are three types of registration for dentists who wish to practise in Singapore.<sup>31</sup>

#### 1. Full Registration

- Allows a local/overseas-trained dentist to practise independently anywhere in Singapore.

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<sup>27</sup> Second Schedule of the MRA,

[http://www.healthprofessionals.gov.sg/content/dam/hprof/smc/docs/becoming\\_registered\\_doctor/Second%20Schedule%20-%20Registrable%20Basic%20Medical%20Qualifications.pdf](http://www.healthprofessionals.gov.sg/content/dam/hprof/smc/docs/becoming_registered_doctor/Second%20Schedule%20-%20Registrable%20Basic%20Medical%20Qualifications.pdf)

<sup>28</sup> Temporary Registration for overseas-trained doctors,  
[http://www.healthprofessionals.gov.sg/content/hprof/smc/en/leftnav/becoming\\_a\\_registereddoctor/registration/register\\_of\\_medical\\_practitioners/temporary\\_registration.html](http://www.healthprofessionals.gov.sg/content/hprof/smc/en/leftnav/becoming_a_registereddoctor/registration/register_of_medical_practitioners/temporary_registration.html)

<sup>29</sup> Documentation Requirements,  
[http://www.healthprofessionals.gov.sg/content/hprof/smc/en/leftnav/becoming\\_a\\_registereddoctor/documentation\\_requirements\\_processing\\_time.html](http://www.healthprofessionals.gov.sg/content/hprof/smc/en/leftnav/becoming_a_registereddoctor/documentation_requirements_processing_time.html)

<sup>30</sup> Continuing medical education (CME) refers to a specific form of continuing education (CE) that helps those in the medical field maintain competence and learn about new and developing areas of their field.

<sup>31</sup> Register as a dentist,  
[http://www.healthprofessionals.gov.sg/content/hprof/sdc/en/leftnav/information\\_for\\_dentists/register\\_as\\_a\\_dentist.html](http://www.healthprofessionals.gov.sg/content/hprof/sdc/en/leftnav/information_for_dentists/register_as_a_dentist.html)

## 2. Conditional Registration

- Allows an overseas-trained dentist to work in a healthcare establishment, under the supervision of a fully registered Division I dentist (and other criteria).<sup>32</sup>

## 3. Temporary Registration

- Allows an overseas-trained dentist to practise for a short period of time (Not exceeding three years) or for the purpose of short attachments for teaching, research or postgraduate study.

Dentists who hold a basic dental degree from Singapore or such qualifications recognised by the Singapore Dental Council and satisfy the Council that he has special knowledge and skill and sufficient experience in any particular branch of dentistry may apply for full registration.

### 2.4.5. Outward restrictions for medical officers under bond

Medical officers who graduated from the National University of Singapore or the Lee Kong Chian School of Medicine are required to serve a certain number of years in the public healthcare sector due to the substantial subsidy given by the Singapore government.<sup>33</sup> Medical officers who fail to complete the required number of years will need to pay liquidated damages (compensation). The number of years (the bond period) for medical and dental students to serve in the public healthcare sector is reflected as follows:

	<b>Singapore Citizen</b>	<b>Singapore Permanent Resident</b>	<b>Foreigner</b>
Medical Student	5 years	6 years	6 years
Dental Student	4 years	5 years	5 years

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<sup>32</sup> Role of Supervisor - [http://www.healthprofessionals.gov.sg/content/hprof/sdc/en/leftnav/information\\_for\\_dentists/Role\\_of\\_supervisor.html](http://www.healthprofessionals.gov.sg/content/hprof/sdc/en/leftnav/information_for_dentists/Role_of_supervisor.html)

<sup>33</sup> [http://www.moh.gov.sg/content/moh\\_web/healthprofessionalsportal/allhealthcareprofessionals/career\\_practice/medical\\_dental\\_undergraduate\\_agreement.html](http://www.moh.gov.sg/content/moh_web/healthprofessionalsportal/allhealthcareprofessionals/career_practice/medical_dental_undergraduate_agreement.html)

#### *2.4.6. Inward movement of natural persons (mode 4) – intra-corporate transferees*

The clinic manager of the medical or dental clinic needs to be a registered doctor or dentist.<sup>34</sup>

#### *2.4.7. Recent developments*

In October 2011, it was reported in the news that the MOH is reviewing its publicity regulations under the Private Hospitals and Medical Clinics Act in view of the evolving media landscape.<sup>35</sup> A review is taking place as the regulations are perceived to be outdated because they do not take into account certain grey areas including advertorials, search engine marketing, and the use of social media platforms as part of advertising campaigns. At present, health-care institutions are required to state only factual information in advertisements, and are not allowed to frame information in a manner that amounts to soliciting or encouraging the use of their services. They are allowed to advertise using a variety of mediums from newspapers to the Internet but are prohibited from using billboards or SMSs. The review is still in process.

#### *2.4.8. Conclusion*

The critical need for more healthcare professionals drives Singapore to look overseas for suitably qualified individuals to meet its health services demand. As part of the national Healthcare 2020 plan, the government aims to boost manpower capacity in a number of ways, including topping up the healthcare workforce through foreign recruitment.

## **2.5. Maritime**

### *2.5.1. Update*

There are no changes compared with the previous study on maritime services in Singapore in 2013. Singapore seeks to establish itself as a leading international maritime centre (IMC). As such the country has rolled out several maritime sector schemes and offered incentives to attract maritime enterprises, particularly

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<sup>34</sup> <https://elis.moh.gov.sg/elis/info.do?task=guidelines&section=GuideLicenseeManager>

<sup>35</sup> <http://yourhealth.asiaone.com/content/guidelines-health-care-ads-outdated-under-review#sthash.1LtROHVu.dpuf>

shipbrokers and charters as well as maritime services like marine insurers, maritime law practices, and banks, to the island state.

According to the Singapore Workforce Development Agency, the maritime industry contributes 7 percent of Singapore's gross domestic product (GDP) and employs over 150,000 people. More than 5,000 establishments, from shipping and port related activities to maritime services like shipping and marine insurance, and offshore shipbuilding and repair services, have set up shop in Singapore.

#### *2.5.2. Regulatory Framework*

The Maritime and Port Authority (MPA) under the Ministry of Transport regulates the industry. The MPA administers four Acts relating to the maritime industry – Maritime and Port Authority of Singapore (Cap 170A), Merchant Shipping Act (Cap 179), Prevention of Pollution of the Sea Act (Cap 243), and Merchant Shipping (Civil Liability and Compensation for Oil Pollution) Act (Cap 180).<sup>36</sup>

The MPA is separate from the main port operators in Singapore. Prior to 1996–1997, the regulating authority was also a port operator – this was the former Port of Singapore Authority (PSA). The regulatory functions of PSA were transferred to MPA in 1996, and the operator functions were privatised.

#### *2.5.3. Foreign ownership restrictions*

Restrictions on new entry of domestic or foreign-invested enterprises for port operation, storage and warehousing, and pilotage remain. There is no requirement for or restriction on foreign firms to enter a joint venture.

Singapore has two main commercial port terminal operators – PSA Corporation Ltd and Jurong Port. Both ports can accommodate all vessel types. The Port of Singapore includes terminals located at six locations. PSA Singapore Terminals manages the major share of container handling in Singapore, and Jurong Port Pte Ltd is Singapore's main bulk and conventional cargo terminal operator. Technically, the port terminal operations are a duopoly as there are only two clusters of container terminals. Both PSA International and Jurong Port are government-linked firms. However, third-party companies, domestic or foreign, may provide related services such as cargo handling.

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<sup>36</sup> [http://www.mpa.gov.sg/sites/pdf/00\\_introduction.pdf](http://www.mpa.gov.sg/sites/pdf/00_introduction.pdf)

### Restrictions on operations

There is still no restriction on the types of cargo that may be carried in international shipping. On competition regulations, Singapore has exempted the maritime industry from anti-competitive practice. There is a block exemption order for liner shipping agreements, which was originally issued in 2006, and extended in 2010 to expire in December 2015.<sup>37</sup>

#### *2.5.4. Labour Mobility*

Akin to most services sector under this study, the employees of foreign firms in the maritime industry are subject to manpower regulations. There is a sub-section for the marine sector in terms of work pass conditions and requirements.<sup>38</sup> In terms of low- or semi-skilled workers who hold work permits, there is a quota on the maximum number of foreign workers that can be hired, calculated as a ratio against the number of employees who are Singaporeans or Singapore permanent residents.<sup>39</sup> An employer in the marine industry is allowed to hire five Work Permit holders for every full-time local employee. In addition, the maximum employment period that an NTS<sup>40</sup>/PRC worker can work in Singapore is 10 years for unskilled workers and 22 years for skilled workers. There is no Permit of Employment (POE) restriction for workers from Malaysia and North Asian Source (NAS). They can work until up to 60 years old.

#### *2.5.5. Maritime Sector Incentives Scheme*

To help realise its plan to grow the industry, in June 2011 Singapore introduced the Maritime Sector Incentives (MSI) scheme, which broadly divides the previous tax incentives into three categories for entities in international shipping operations, maritime leasing arrangements, and shipping support services. The incentives and initiatives under the MSI scheme are:

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<sup>37</sup> <http://www.ccs.gov.sg/content/ccs/en/Media-and-Publications/Media-Releases/Competition-Commission-Consults-on-Proposed-Block-Exemption-Order-BEO-for-Liner-Shipping-Agreements-in-the-Maritime-Industry.html>

<sup>38</sup> Work Pass Conditions and Requirements for Marine Sector - <http://www.mom.gov.sg/foreign-manpower/passes-visas/work-permit-fw/before-you-apply/Pages/marine-sector.aspx>

<sup>39</sup> <http://www.mom.gov.sg/foreign-manpower/foreign-worker-levies/Pages/calculation-of-foreign-worker-quotas.aspx>

<sup>40</sup> Non-traditional Sources.

- MSI-Approved International Shipping Enterprise (MSI-AIS) Award
- MSI-Maritime Leasing (MSI-ML) Award
- MSI-Shipping-related Support Services (MSI-SSS) Award
- Withholding tax exemption on interest payable on loans obtained from foreign lenders to finance the purchase or construction of ships
- Withholding tax exemption on interest and related payments on loans obtained from foreign lenders to finance the purchase of containers and inter-modal equipment

#### *2.5.6. Conclusion*

As part of its plan to strengthen its position as an international maritime hub, Singapore imposes no market access limits on commercial presence in most of the maritime services. The plan to grow the industry also saw the Singapore government introduce an incentive scheme and organise career events to attract more maritime services companies and labour into the sector.

## **2.6. Telecommunication**

### *2.6.1. Update*

There are no changes since the previous study in 2010. Although Singapore's telecommunications services sector has been fully liberalised since 2000, due to the small size of the market it is dominated by a few major players, which are the three mobile operators – Singapore Telecom (SingTel), Starhub, and MobileOne (M1). This small size of Singapore's telecom market was evident from the inability to attract a fourth mobile operator.

### *2.6.2. Regulatory framework*

The Infocomm Development Authority of Singapore (IDA) is the statutory body responsible for the development, promotion, and regulation of the information communications industry, which includes both the telecoms and IT sectors. The IDA is under direct authority of the Ministry of Communications and Information (MCI).

The telecoms sector is regulated by the IDA under the Telecommunications Act (Cap 323) and the Infocommunications Development Authority of Singapore Act (Cap 137A). The Telecommunications Act is the main legislation governing the telecoms industry in Singapore. It sets out the broad licensing and regulatory framework for the sector, whilst specific issues are addressed through regulations, a code of practice,

standards of performance, directions, and advisory guidelines issued by the IDA. Although the Telecoms Act does not distinguish between fixed, mobile, and satellite services per se, the licensing and regulatory requirements are service-specific.

#### *2.6.3. Foreign ownership restrictions*

Since the telecommunication industry was liberalised in stages from 2000 to 2002, the IDA allows free entry and exit, and does not pre-determine the number of licences to be awarded unless there are resource constraints. But it was observed that current practice is to issue facilities-based licences only to companies incorporated in Singapore, which can be wholly owned by a foreign entity. For services-based licences, the IDA also issues licences to foreign companies with a local presence. Merger and acquisition control regulations exist under the Telecoms Competition Code (TCC).

#### *2.6.4. Licensing framework*

All firms operating and providing telecommunications systems and services in Singapore must be licenced under section 5 of the Telecoms Act. The IDA separates licences for the operation and provision of telecoms systems and services into licences for either facilities-based operators (FBOs) or services-based operators (SBOs). Where Radio Frequency (RF) spectrum is required for the provision of wireless services, additional licensing is required under the Radio-Communications Regulations.

#### *2.6.5. Tariffing*

Whilst a non-dominant licensee is not subject to any regulation regarding end user tariffs, a dominant licensee must file a tariff for any telecommunication services they intend to offer with the IDA and obtain the IDA's prior written approval prior before offering the service. The IDA will assess whether the proposed tariff is just and reasonable in accordance with the principles in the TCC. Specifically, the IDA will apply the following criteria:

- In the case of a tariff for an End User telecommunication service, the IDA will assess whether the prices, terms, and conditions are either excessive or inadequate. To assess whether the prices are excessive, the IDA will determine whether the prices are competitive with those in a "basket" of jurisdictions, including neighbouring countries, newly industrialised countries, and major

financial markets. To determine whether the prices are inadequate, the IDA will assess whether the prices are either above average incremental cost or not less than those offered by Licensees that provide a comparable service. The IDA will also seek to determine whether the prices, terms, and conditions are discriminatory by comparing the prices, terms and conditions to those that the Dominant Licensee offers in other tariffs for comparable telecommunication services. In cases in which the IDA determines that a telecommunication service has a widespread public impact, the IDA may also consider other relevant factors.

- In the case of a resale tariff for an End User telecommunication service, the IDA will seek to determine whether the Dominant Licensee is offering the service on the same (or, where the tariff is filed to meet the request of a Licensee seeking to acquire the service, on substantially equivalent) prices, terms, and conditions as the Dominant Licensee's corresponding tariff for that End User telecommunication service.
- In the case of a tariff for wholesale telecommunication service offered under Sub-section 4.3 of this Code, the IDA will seek to determine whether the prices, terms, and conditions are no less favourable than the prices, terms, and conditions on which the Dominant Licensee offers any comparable retail service to its End Users.

#### *2.6.6. Interconnection*

The IDA strongly encourages licensees to enter into interconnection agreements through commercial negotiations. However, the IDA recognises that it cannot rely solely on market forces to ensure that dominant licensees<sup>41</sup> enter into interconnection agreements. Therefore, the IDA takes a more active role in ensuring the adoption of just, reasonable, and non-discriminatory Interconnection Agreements involving dominant licensees.

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<sup>41</sup> 'Dominant Licensees' refer to Facilities-based Licensees that IDA has classified as dominant. 'Licensee' refers to Facilities-based and Services-based Licensees that use switching or routing equipment to provide telecommunication services to the public.

IDA requires that a dominant licensee must provide interconnection related services and mandated wholesale services to other licensees. A licensee that seeks to obtain these services from a dominant licensee may do so by using any of the following three options:

*Option 1:* A Requesting Licensee may obtain Interconnection Related Services and Mandated Wholesale Services from a Dominant Licensee on the terms specified in a Reference Interconnection Offer (“RIO”) developed by the Dominant Licensee and approved by the IDA.

*Option 2:* A Licensee may obtain Interconnection Related Services and Mandated Wholesale Services from a Dominant Licensee on the same prices, terms, and conditions that the Dominant Licensee has agreed to with another similarly situated Licensee in any Interconnection Agreement.

*Option 3:* A Licensee may obtain Interconnection Related Services and Mandated Wholesale Services from a Dominant Licensee pursuant to the prices, terms, and conditions of an Individualised Interconnection Agreement between the two parties.

In addition, the IDA sets the technical standards and prices of the interconnection under sections 5 and 6 of the TCC.<sup>42</sup>

#### *2.6.7. Universal Service*

IDA imposes a Basic Service Obligation on operators that are designated as public telecom licensees under Section 6 of the Telecoms Act. These operators are then required to provide a basic telephone service to any person in Singapore who requests the provision of such service. Basic telephone service means ‘a fundamentally plain telephony service provided through a telephone set connected to the public switched telephone system and which service excludes that which is provided through any enhanced or supplementary configuration of Systems’.

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<sup>42</sup> <http://www.ida.gov.sg/~media/Files/PCDG/Practice%20Guidelines/TCC/TCC2010.pdf>

### *2.6.8. Recent developments*

The IDA sought views through a one-month long public consultation<sup>43</sup> on 22 April 2014 on proposals to optimise the use of radio spectrum and to introduce further competition to ‘enhance the vibrancy of the mobile and wireless landscape in Singapore’. The regulator is focusing mainly on mobile virtual network operators whilst still remaining open to awarding a fourth mobile operator licence. Past efforts to woo a fourth mobile operator have been unsuccessful and there have been doubts that more competition will be viable in a tiny telecoms market like Singapore.<sup>44</sup>

### *2.6.9. Conclusion*

In 2000, the Telecoms Competition Code opened the industry to foreign and domestic companies seeking to provide facilities-based (fixed line or mobile) or services-based (local, international, and callback) telecommunications services. As of December 2012, Singapore had 48 facilities-based (group) and 251 services-based (individual) operators.<sup>45</sup> However, the mobile market in Singapore has reached saturation, as is evident from the failure to attract a fourth mobile telecommunications operator to the market.

## **2.7. Tourism Services**

### *2.7.1. Overview*

The tourism sector is one of Singapore’s key services sectors, contributing about 4 percent to Singapore’s GDP and supporting some 160,000 jobs. As such, the government is keen to safeguard the long-term sustainable growth of the country’s travel and tourism industry with the Singapore Tourism Board responsible for promoting high-quality tourism. Prime Minister Lee Hsien Loong recently commented that upgrading and enhancing Singapore’s attractiveness as a key tourist destination must continue, adding that the government has set aside almost S\$1 billion in a Tourism Development Fund to help fund new tourism concepts amongst other initiatives.<sup>46</sup>

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<sup>43</sup> <http://news.asiaone.com/news/digital1/plans-ease-fourth-singapore-mobile-operator-underway>

<sup>44</sup> <http://news.asiaone.com/news/digital1/can-4th-telco-shake-market>

<sup>45</sup> <http://photos.state.gov/libraries/singapore/6771/business/InvestClimate2013.pdf>

<sup>46</sup> Singapore's tourism industry must continue to upgrade and enhance its attractions: PM Lee - <http://www.straitstimes.com/breaking-news/singapore/story/singapores-tourism-industry-must-continue-upgrade-and-enhance-its-attr>

### *2.7.2. Regulatory framework*

The Singapore Tourism Board (STB) is the statutory body responsible for the development of the tourism sector in Singapore. The STB is under the direct authority of the Ministry of Trade and Industry.

Various legislations govern the different businesses in the tourism sector, whilst specific bodies administer a particular law. For instance, the Hotels Licensing Board<sup>47</sup> is responsible for administering the Hotels Act, which governs the hotel and resorts industry in Singapore. The Travel Agents Act and the Tourist Guide Licence are administered by the STB. The National Environment Agency (NEA) regulates the food retail industry in Singapore and licences all food retail businesses.<sup>48</sup>

### *2.7.3. Foreign ownership restrictions*

There are no restrictions to entry of foreign-invested tourism services providers in Singapore. They are allowed to incorporate their business, which can be wholly owned by a foreign entity.

### *2.7.4. Licensing framework*

The various licences for the different types of tourism service providers are administered by the groups mentioned above.

All businesses operating a commercial accommodation service in Singapore, including lodging, boarding, and guest houses must be registered under section 5 of the Hotels Act (Cap 127). The manager of the hotel must also be licenced under section 7 to be permitted to manage or keep the premises for the purposes of a hotel.

Persons looking to operate a food retail outlet have a host of licences to apply for, including a Food Shop Licence from the NEA, a licence for importing food ingredients from the Agri-Food and Veterinary Authority (AVA), a liquor licence from the Liquor Licensing Board, and a Halal certification from the Islamic Religious Council of Singapore (MUIS) if they intend to serve Halal-certified food.

Travel agents must be licenced under Section 6 of the Travel Agents Act (Cap 334), which is administered by the STB. In addition, only tourist guides who hold a valid licence issued under the Singapore Tourism (Licensing and Control of Tourist Guides) Regulations (Cap. 305B, Rg 1) are permitted to conduct tours.

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<sup>47</sup> <https://app.hlb.gov.sg/Default.aspx>

<sup>48</sup> <http://app2.nea.gov.sg/public-health/food-hygiene>

### *2.7.5. Recent developments*

The Ministry of Trade and Industry (MTI) and the STB are planning to tighten standards for tourist guides, and sought public feedback in November 2013 on proposed amendments to the STB Act to strengthen the statutory body's investigative powers against illegal guiding.<sup>49</sup> The proposed changes are part of the government's efforts to raise the professionalism of tourist guides and the quality of tourist guiding in Singapore. The ministry is also looking to review the regulatory framework to tackle unlicensed guiding.

### *2.7.6. Conclusion*

Given the economic importance of tourism to Singapore, continued growth of the industry is expected. Apart from leisure tourism, the government is looking to attract more education and medical services tourism as there is significant market potential in China and Southeast Asia. The Tourism Working Group under the Economic Review Committee has also recommended that the operating environment in Singapore be improved to make it more conducive for local and foreign tourism businesses based in the country to create and grow new product concepts.<sup>50</sup>

## **2.8. Recommendations and Conclusion**

Singapore is ready to join the ASEAN Economic Community (AEC) in the area of service liberalisation. However, we noted that the recent tightening of foreign labour policy may have an adverse impact on the country's service sector.

### *2.8.1. Tighter Foreign Labour Policy*

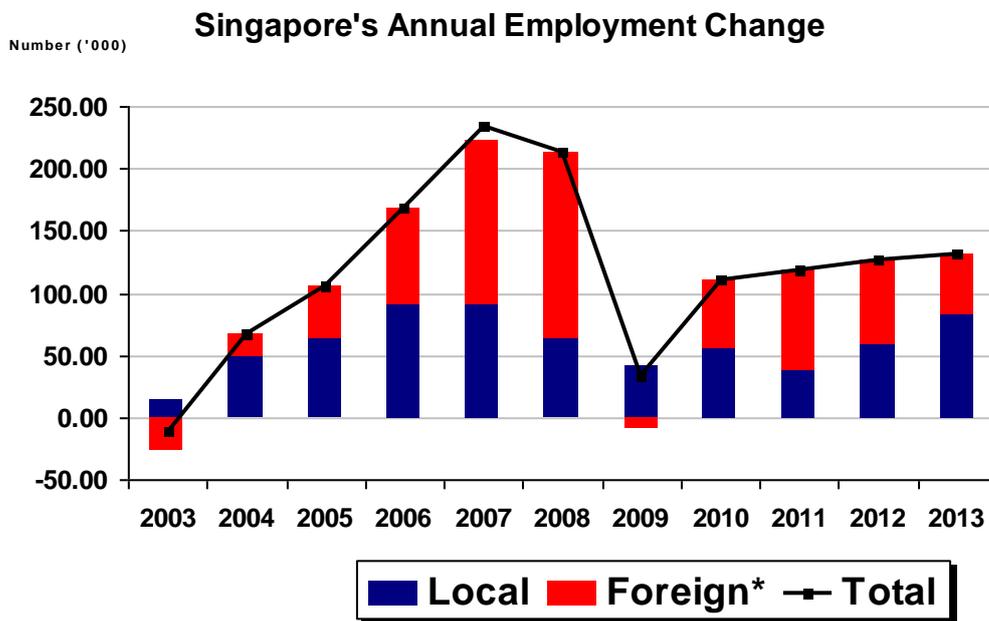
Whilst the entry of foreign firms to Singapore is relatively easy, and sometimes with the assistance of investment promotion agencies (IPAs) like the Economic Development Board (EDB), the tightening of foreign labour may give rise to some operational problems for businesses. According to Ministry of Manpower Labour

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<sup>49</sup> [http://www.news.gov.sg/public/sgpc/en/media\\_releases/agencies/mti/press\\_release/P-20131122-1/AttachmentPar/00/file/Public%20Consultation%20on%20Proposed%20Amendments%20to%20the%20STB%20Act.pdf](http://www.news.gov.sg/public/sgpc/en/media_releases/agencies/mti/press_release/P-20131122-1/AttachmentPar/00/file/Public%20Consultation%20on%20Proposed%20Amendments%20to%20the%20STB%20Act.pdf)

<sup>50</sup> [http://www.mti.gov.sg/ResearchRoom/Documents/app.mti.gov.sg/data/pages/507/doc/16%20ERC\\_Services\\_Tourism.pdf](http://www.mti.gov.sg/ResearchRoom/Documents/app.mti.gov.sg/data/pages/507/doc/16%20ERC_Services_Tourism.pdf)

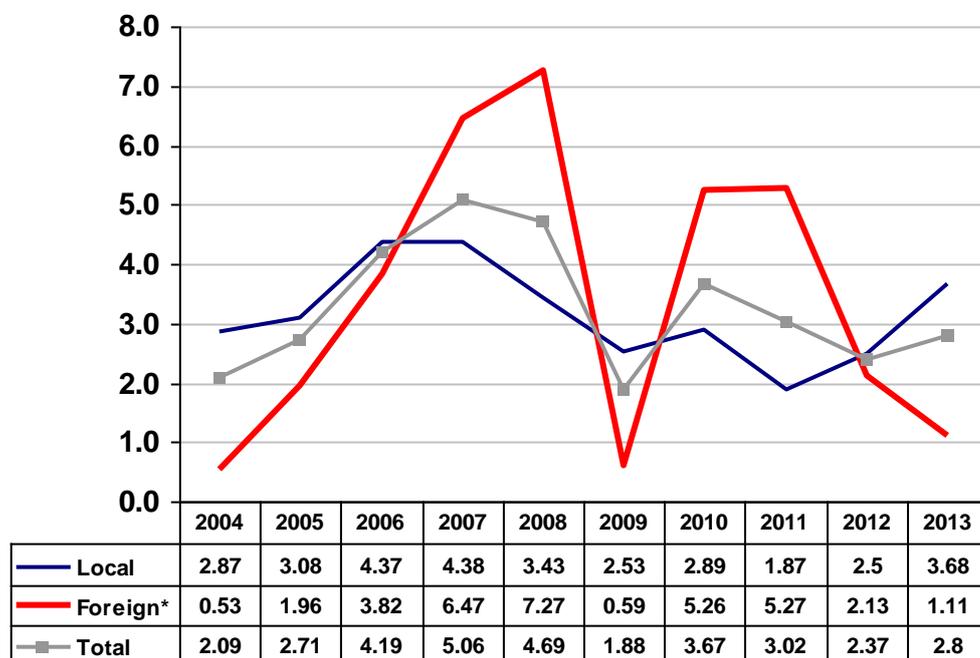
Market 2013 report,<sup>51</sup> employment creation in the year was mainly driven by locals as the gains in foreigners continued to moderate amidst tightened foreign labour controls. In 2013, total employment grew by 136,200 or 4.1 percent, compared with 129,100 or 4.0 percent in 2012, whilst foreign employment gains slowed to 53,300 or 4.2 percent in 2013, compared with 70,400 or 5.9 percent in 2012. Excluding construction and foreign domestic workers, the growth in foreign employment in 2013 (16,800 or 2.3 percent) was only half that in 2012 (32,200 or 4.6 percent).



<sup>51</sup> Labour Market, 2013, Ministry of Manpower. Source: <http://stats.mom.gov.sg/Pages/Labour-Market-Report-4Q-2013.aspx>

## Singapore's Annual Growth in Employment

% y/y



**— Local — Foreign\* — Total**

Foreign employment growth slowed sharply in services, excluding foreign domestic workers, to 12,100 in 2013 from 22,800 in 2012. On the whole, the growth of foreign labour slowed markedly in 2012 and 2013, close to the slow growth seen in the post-GFC period, after the Singapore Government tightened its foreign labour policy in 2012.<sup>52</sup>

Anecdotal evidence and press reports suggest Singapore's restrictions on foreign labour policy have had an adverse impact on certain industries, in particular retailers and food outlets. Government also deferred S\$2 billion worth of projects to reduce the need for 20-30k foreign workers required to work in those projects

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<sup>52</sup> One of the key backlashes against the government during the General Election in May 2011 was the discontent relating to competition with foreigners for jobs and housing as well as an increasing foreign population leading to strains on public infrastructure. The ruling People's Action Party won the General Election with the smallest margin of popular votes since independence. See more at: <http://www.businessweek.com/news/2011-08-15/singapore-tightens-foreign-worker-rules-after-poll-backlash.html>

Although we understand the rationale for the government's commitment to controlling the quality and quantity of foreign labour inflows, a blanket approach will have a detrimental effect on the economy. Under the services sector, tourism, retail, and food services may be the most affected by the more restrictive foreign labour rules.

### **3. Standards and Conformance**

There has been some progress in the standards and conformance relating to Mutually Recognized Agreements (MRA) for the five sectors – Automotive, Cosmetic, Electrical and Electronics Equipment, Medical Devices, and Pharmaceutical, since 2011. However, the progress described is, at best, slow-going. The ASEAN MRA for Type Approval of Automotive Products is still under development and Singapore estimated it would be ready by 2016. Meanwhile, the ASEAN Medical Device Directive is undergoing finalisation after the draft document was produced. Singapore's stance of adopting or directly using international standards and technical requirements for most sectors puts it in a good position for alignment with ASEAN standards.

#### **3.1. Overview**

Standards are a set of specifications or guidelines to ensure that a product, service, or process does what it is supposed to do. They are developed through a standardisation process, which involves establishing a common standard through repeated and consistent use. Standards help to facilitate trade, improve quality and productivity, enhance safety and health, catalyse technological advances, and boost consumers' confidence in products and services.

Singapore's National Standardisation Programme is administered by SPRING Singapore (Standards, PRoductivity and INnovation for Growth), where Singapore Standards (SS) are established and publicised in the government gazette. Singapore Standards are nationally recognised documents, established by consensus, which are developed through a transparent and consensual process under the National

Standardisation Programme. They are then promoted for wide acceptance and adoption by the relevant industry. SPRING Singapore manages the National Standardisation Programme under the guidance of an industry-led national Standards Council that advises the government agency on the directions, policies, strategies, and priorities for the National Standardisation Programme. The Standards Council does this through 12 Standards Committees that lead standards development and implementation in various functional and technical areas. Within these Standards Committees, various Technical Committees and Working Groups undertake the preparation of standards. These committees and groups comprise members from industry, professional bodies, associations, academia, and government agencies.

The 12 functional/technical areas are:

1. Biomedical Standards Committee (BMSC)
2. Building and Construction Standards Committee (BCSC)
3. Chemical Standards Committee (CSC)
4. Electrical and Electronic Standards Committee (EESC)
5. Energy Standards Committee (ENSC)
6. Environment Standards Committee (EVSC)
7. Food Standards Committee (FSC)
8. General Engineering and Safety Standards Committee (GESSC)
9. Information Technology Standards Committee (ITSC)
10. Management System Standards Committee (MSSC)
11. Manufacturing Standards Committee (MSC)
12. Silver Industry Standards Committee (SISC)

There are currently over 600 Singapore Standards for products, services, practices, and management systems in Singapore. All Singapore Standards are reviewed once every five years, although they may be reviewed before the five-year period elapses if the need arises. The Working Group that developed the standard will decide whether there is a need to revise, amend, archive, or withdraw the standard. Requests for review of the standard may also come from the public, industry, academia, or government. Where applicable, Singapore Standards are aligned to

international standards to help ease entry into overseas markets for Singapore exports and lower technical barriers to trade.

In Singapore, compliance with Singapore Standards is not mandatory but on a voluntary basis, except when they are used by government bodies in regulations or requirements for safety, environmental, and health reasons.

On 5 August 2014, SPRING Singapore announced that it will put aside an additional S\$10 million in grant budget, in addition to the S\$20 million tranche allocated in 2011, to accelerate quality and standards development. Local enterprises can tap into these funds to develop and adopt new standards as strategic business tools. In 2013, the government agency developed and reviewed some 180 Singapore Standards and bolstered the accreditation system with 290 competency conformity assessment bodies.

At the policy level, SPRING represents Singapore in the ASEAN Consultative Committee for Standards and Quality (ACCSQ), as well as in the Asia Pacific Economic Cooperation (APEC) Sub-Committee on Standards and Conformance (SCSC), and the Pacific Area Standards Congress (PASC).

### **3.2. AEC Study Phase IV: Mutual Recognition Agreements (MRA)**

For 2014 and under Standards and Conformance in Singapore, we are looking at five sectors – Automotive, Cosmetic, Electrical and Electronic Equipment (EEE), Medical Devices, and Pharmaceutical. SPRING is the coordinating agency for the five sectors whilst several other government agencies oversee the activities of specific sectors. The table below lists the relevant oversight agency for the particular sector:

<b>Sector</b>	<b>Government Agency</b>
Automotive	Land Transport Authority
Cosmetic	Health Sciences Authority
Electrical and Electronic Equipment (EEE)	SPRING
Medical Devices	Health Sciences Authority
Pharmaceutical	Health Sciences Authority

To recap, in Singapore’s Mid-Term report conducted in 2012, we concluded that most of the national standards and technical requirements are aligned with the ASEAN requirements. Two sectors – Automotive and Medical Devices – were indeterminate as the ASEAN MRA was still being drafted. Of the five sectors under review in Phase IV, three have already implemented the ASEAN MRA as of 2012 whilst two were in progress. Please refer to the table below:

Sector	MRA	Status (As of 2012)
Automotive	ASEAN MRA on Type Approval of Automotive products	In progress
Cosmetic	ASEAN Cosmetic Directive	Implemented
Electrical and Electronic Equipment (EEE)	ASEAN Harmonised Electrical and Electronic Equipment Regulatory Regime (AHEEERR)	Implemented
Medical Devices	ASEAN Medical Devices Directive	In progress
Pharmaceutical	ASEAN Common Technical Dossier	Implemented

To assess the restrictions due to standards and conformance requirements in terms of their effect on trade and their role as a non-trade barrier, we look at three areas for ASEAN and by extension for Singapore:

**Standardisation** refers to making sure national standards are harmonised with standards and practices that are recognised internationally. This can help ensure that national standards are not in conflict with other regional standards and therefore do not become an impediment to trade by restricting the movement of goods.

**Conformity assessment procedures** will need to be mutually recognised in ASEAN through the mutual recognition of conformity assessment results. By way of mutual recognition arrangements (MRA), ASEAN AMSs) can assess conformity

through the mutual recognition of conformity results issued by designated conformity assessment boards (CABs). This conformance results are recognised by the MRAs signatories and could be in the form of bilateral MRSs between member states.

**Technical regulations** relate to the harmonisation of national regulatory requirements and convergence of product safety regulations under ASEAN's Regional Technical Regulations. They also include the harmonisation of mandatory requirements such as registration and pre-market approval requirements to ensure the free movement of goods.

### **3.3. Automotive**

#### *3.3.1. Headlines*

\* There has been some progress in the development of the ASEAN MRA for Type Approval of Automotive Products

\* Singapore expects ratification of the MRA in 2016, contingent on the signing of the MRA in 2015 after the Automotive Product Working Group (APWG) finalises the document

\* The list of 19 components and their standards have been included in the initial annex of the MRA, although addressing the deviations across AMSs led to a delay in finalising the MRA

\* The coverage of the MRA where the origin of the automotive products come from AMSs is still under discussion

#### *3.3.2. Harmonisation of standards*

In ASEAN, Thailand and Malaysia have well-established motor vehicles and parts industries, whereas Singapore does not have a motor vehicle industry. The ASEAN motor vehicle parts industry is concentrated in four countries – Thailand, Malaysia, Indonesia, and the Philippines. Despite not having a motor vehicle industry, Singapore is a major source of electronic automotive components. As such, Singapore does not actively develop local national standards for automotives. Instead, it adopts international standards through 'Direct Use' and accepts vehicles that comply with United Nations Economic Commission for Europe (UNECE) Regulations for registration without subjecting them to additional tests.

That said, there is a modification to one of the adopted UNECE regulations. Under UNECE Regulation 43, which stipulates uniform provisions concerning the

approval of safety glazing materials and their installation on vehicles, Singapore has additional requirements for the safety of glass compared with UNECE. The country requires the windscreen and other windows to have a minimum of 70 percent light transmittance across the transparent area. Other safety glazing in the vehicle must have at least 25 percent light transmittance across the transparent area. Furthermore, the windscreen must not in any way prevent, obstruct, or interfere with the transmission signals between an in-vehicle unit (IU) installed in vehicles and any Electronic Road Pricing (ERP) facility. Vehicles with metallic oxide windscreens must have a sterile area at the lower right corner of the windscreen to enable the successful transmission of signals between the IU installed there and the ERP facility.

### *3.3.3. Conformity Assessment Procedures*

ASEAN has completed the drafting of the the ASEAN MRA for Type Approval of Automotive Products and is expected to be signed by ASEAN economic ministers within 2015<sup>53</sup>.

ASEAN leaders have agreed to adopt an MRA based on the UNECE 52 (1958), however it was reported that there was international pressure to adopt the 1998 UNECE agreement instead, which includes the option of self-declaration.<sup>54</sup> This was cited as one of the reasons for delays in progress towards harmonisation in the automotive sector. In addition, there is a need to resolve differing views amongst the AMSs on the scope of the MRA. Some AMSs are of the view that the MRA should cover products manufactured and marketed in ASEAN whilst others think that coverage of products marketed in ASEAN regardless of the source is better. Singapore's LTA added that the delay in finalising the MRA is in addressing the deviations in the 19 regionally agreed upon standards. In particular, the emissions regulations vary considerably across AMSs. The APWG has sought support from the European Union (EU) 'ARISE' programme, a technical cooperation facility, to understand how the EU addresses deviations within the European regional bloc and how their solutions can be applied to the ASEAN MRA.

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<sup>53</sup> <http://jama-english.jp/asia/news/2015/vol59/article1.html>

<sup>54</sup> Edited by John Fry, August 2010, *Asean: Regional Trends in Economic Integration, Export Competitiveness, and Inbound Investment for Selected Industries*.

Singapore expects the MRA to be ratified in 2016 if the arrangement is signed in 2015. The 19 regionally agreed upon standards for automotive vehicles and motorcycle are listed below:

No.	Automotive Product	UN Regulation
1	Braking System	R13
2	Braking System (Passenger Car)	R13H
3	Seat belt anchorage	R14
4	Seat belt	R16
5	Seats	R17
6	Head Restraints	R25
7	Pneumatic tyre – passenger	R30
8	Speedometer	R39
9	Exhaust Emission (L category)	R40
10	Noise emission (L category)	R41
11	Safety glass	R43
12	Rear View Mirror	R46
13	Exhaust Emission	R49
14	Noise emission	R51
15	Pneumatic tyre – commercial	R54
16	Audible Warning Device	R28
17	Tyre (L category)	R75
18	Steering Equipment	R79
19	Exhaust Emission	R83

*Note:* The list of automotive products for M1, N1, and L categories that fall within the scope of this Arrangement. M1, N1 and L are vehicle categories.

- a. M1 - Vehicles used for the carriage of passengers and comprising not more than eight seats in addition to the driver's seat. (Passenger car)
- b. N1 - Vehicles used for the carriage of goods and having a maximum mass not exceeding 3.5 tonnes. (Pick-up Truck)
- c. L - Motor vehicles with less than four wheels [but does include light four-wheelers]

SPRING Singapore was appointed as the Competent Authority with the responsibility to identify and monitor listed technical services. Although the agency has identified and considered a list of technical services that could possibly meet the

technical competence criteria agreed by the APWG under the MRA, it will only propose their listing upon signing of the MRA. Moreover, the Singapore Accreditation Council was appointed as the Accreditation Body to accredit the Listed Technical Services.

#### *3.3.4. Institutional Arrangements*

Whilst SPRING Singapore is the regulatory authority overseeing the activities of the APWG, the Land Transport Authority of Singapore (LTA) is the government agency representing Singapore at the APWG meetings.

Apart from SPRING Singapore and LTA, the National Environment Agency (NEA) is also responsible for the development of standards for the automotive sector in Singapore, as well as monitoring the implementation of the ASEAN MRA for Type Approval of Automotive Products.

#### *3.3.5. Conclusion*

There has been progress in the development of the MRA. As Singapore is not a vehicle manufacturing nation, the country imports all its vehicles and has in place an approval system that allows vehicles that comply with internationally recognised standards such as those identified in the MRA. Nonetheless, Singapore is ready to adopt the terms and definitions in the finalised MRA.

There are still some issues hindering the implementation of the MRA that are under discussion, including the coverage of the MRA where the origin of the automotive product has to come from AMSs.

### **3.4. Cosmetics**

#### *3.4.1. Headlines*

- Singapore implemented the ASEAN Cosmetic Directive in 2008 by virtue of Singapore Health Products Regulations 2007
- Prior to the endorsement of the Terms of Reference for the ASEAN Cosmetic Testing Laboratory Network (ACTLN) in July 2012, Singapore had already appointed the Designating Bodies and Test Laboratory, with the situation unchanged from the 2011 study
- The Health Sciences Authority (HSA) highlights that knowledge and understanding of the regulatory requirements of cosmetic products in the industry may not be

as deep as desired; therefore, it continues to conduct workshops and briefings to enhance the industry's capability

- The HSA notes that the establishment of a Post-Market Alert System (PMAS) for AMSs is a benefit for the cosmetics sector in the region.

#### *3.4.2. Technical Regulations*

The Health Sciences Authority (HSA) implemented the ASEAN Cosmetic Directive (ACD) with effect from 1 January 2008 via the Health Products (Cosmetic Products–ASEAN Cosmetic Directive) Regulations 2007, which is a Subsidiary Legislation under the Health Products Act for the regulatory control of cosmetic products in Singapore. Under the Health Products Act, any companies or individuals intending to sell or supply a cosmetic product in Singapore are required to notify the HSA prior to doing so. They are also required to comply with the requirements under the ASEAN Cosmetic Directive.

Following the application of the ACD in Singapore, cosmetic products that were regulated under the Medicines Act will now be regulated under the Health Products Act and these include: toothpastes, soaps, shampoos, make-up, and perfumes. There will also be an expanded list of prohibited substances and a specific list of permitted additives, such as preservatives, colorants, and UV filters. In addition, better labelling on products such as manufacture and expiry dates, as well as handling precautions will be introduced. Previously, cosmetics products were divided into two categories – high-risk and low-risk. High-risk products had to be registered, whereas low-risk products needed no registration. Now the HSA must be notified of products being sold by all companies, regardless of their categories.

This notification system will assist in the building of a database of about 100,000 cosmetic products sold in Singapore, according to then HSA CEO Dr John Lim. This will encourage any further action to be taken when needed because all of the information held on what is being sold in Singapore is substantive. Furthermore, the presence of an ASEAN Post-Marketing Alert System (PMAS), as well as global signals from counterpart regulators will help to keep safety monitoring and information on unsafe products current.

The Cosmetics Control Unit (CCU), set up in November 1995, is responsible for the administration of the regulations for cosmetic products.

### 3.4.3. Conformity Assessment Procedures

The terms of reference (TOR) of the ASEAN Cosmetic Testing Laboratory Network (ACTLN) was endorsed by the 3rd Special Experts' meeting of the ACTLN during the 17th meeting of the ASEAN Cosmetic Committee held in Siem Reap, Cambodia on 11–12 July 2012.<sup>55</sup>

However, Singapore had already appointed the Designating Body and a Test Laboratory prior to the endorsement of the TOR, with the situation unchanged from the 2011 study. HSA and SPRING Singapore were appointed as the Designating Body with responsibility for identifying and monitoring Conformity Assessment Bodies (CABs), and Singapore has identified a test laboratory to be part of the ASEAN Cosmetic Testing Laboratory Network (ACTLN). The Cosmetics Laboratory under the HSA is named as the CAB, and is accredited by the Singapore Accreditation Council (SAC), under SPRING Singapore, determines the technical competence of the CAB to carry out specific conformity assessment tasks. The SAC would audit the conformity assessment body every three years to ensure compliance with the requirements and standards set for conformity assessment in ASEAN.

The list of technical regulations applicable to conformity assessment of cosmetic products is publicly available on the HSA website. One such technical document provides a list of ingredients, stating whether they can be used in cosmetics. There are five ingredient annexes:

- **Annex II** is a list of prohibited ingredients, i.e., ingredients that must not be added to cosmetic products. They are not allowed beyond 'unavoidable traces in Good Manufacturing Practice';
- **Annex III** is a list of ingredients that cannot be used in cosmetic products beyond the limits and/or outside the conditions laid down (also called list of restricted substances);
- **Annex IV** is a list of permitted colouring ingredients (except hair colours) that can be used in cosmetics. Each colour is listed with its conditions of use;

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<sup>55</sup> Report of the 17<sup>th</sup> Meeting of the ACC - <http://www.ctfas.org.sg/Files/docs/17th%20ACC.pdf>

- **Annex VI** is a list of preservatives allowed to be used in cosmetics. Each preservative is listed together with limits and conditions of use, as well as warnings to be labelled if required;
- **Annex VII** is a list of UV filters allowed to be used in cosmetic sunscreen products. Each UV filter is listed with limits and conditions of use, as well as warnings to be labelled if required;

Additional technical documents are available at this link: [http://www.hsa.gov.sg/content/hsa/en/Health\\_Products\\_Regulation/Cosmetic\\_Products/Overview/ASEAN\\_Cosmetic\\_Directive.html](http://www.hsa.gov.sg/content/hsa/en/Health_Products_Regulation/Cosmetic_Products/Overview/ASEAN_Cosmetic_Directive.html)

To prepare the industry and to enhance its capability, HSA along with SPRING Singapore and the Cosmetic Toiletry and Fragrance Association of Singapore (CTFAS) have organised workshops to educate the cosmetic companies.

#### *3.4.4. Institutional Arrangements*

The HSA is the regulatory authority representing Singapore at the ASEAN Cosmetic Committee (ACC). The HSA is also responsible for conformity assessment of cosmetic products as well as monitoring the implementation of the ACD in the country.

#### *3.4.5. Conclusion*

The HSA highlighted that industry knowledge and understanding of the regulatory requirements of cosmetic products may not be as deep as desired. As the majority of cosmetic products were low-risk, companies' products were subject only to minimum regulatory requirements before the ACD was implemented. Nonetheless, since 2005, workshops and briefings have been conducted to build the industry's capability to comply with the regulations. Furthermore, the HSA has implemented industry outreach programmes on an ad-hoc basis, contingent on the post-market surveillance findings, to address issues relating to compliance. In conjunction, the CTFAS also organises regular workshops to educate the industry on the technical requirements and to notify the companies about updates.

HSA also noted that the establishment of a Post-Market Alert System (PMAS) for AMSs is a benefit for the cosmetic sector in the region. The agency reiterated the recommendation made at the ASEAN Cosmetic Committee (ACC) meetings to

enhance the PMAS, encouraging AMSs to share information, including information of the packaging of the products promptly. Singapore had been the lead country for the PMAS and had coordinated its activities since its inception in 2004 until mid-2011.

### **3.5. Electrical and Electronic Equipment**

#### *3.5.1. Headlines*

- Singapore remains ready to comply with the ASEAN Harmonised Electrical and Electronic Equipment Regulatory Regime (AHEEERR)
- There are no changes for Singapore in terms of national transposition of regional agreements as well as institutional capacity and linkages compared with 2011.
- Discussions of the conformity assessment procedure are ongoing as Singapore objects to the conformity assessment regime for Electrical and Electronic Equipment (EEE) products that are classified as high-risk
- A Safety Alert system is still under development, which will strengthen post-market surveillance of the EEE sector once an agreement has been reached

#### *3.5.2. Harmonisation of standards*

Standardisation refers to making sure national standards are harmonised with standards and practices that are internationally recognised. This is usually achieved by aligning national standards with those set by an international organisation. For the EEE sector, one such organisation is the International Electrotechnical Commission (IEC), which prepares and publishes international Standards for all electrical, electronic, and related technologies. The IEC is also one of the three global organisations that develop international Standards for the world. The other two are the International Organisation for Standardisation (ISO) and the International Telecommunication Union (ITU).

The Joint Sectoral Committee on Electrical and Electronic Equipment (JSC EEE) was reported in November 2011 to be considering using the standards and procedures of the IEC for ASEAN. Meanwhile, AMSs are obliged to harmonise their national standards with the IEC standards to support the implementation of the ASEAN Sectoral Mutual Recognition Arrangement (MRA) for Electrical and Electronic

Equipment as well as the ASEAN Harmonised Electrical and Electronic Equipment Regulatory Regime (AHEEERR).

SPRING Singapore is both the regulatory authority and designating body overseeing the EEE sector in Singapore. The country ratified the ASEAN EEE MRA on 15 April 2009 as reported during the 9th JSC EEE meeting. Singapore also ratified the AHEEERR on 31 December 2010.

The country does not have national standards for EEE products, but encourages the direct use of international standards, namely the IEC standards for the sector. In addition, the regulator has the prerogative to accept both national standards and international standards. There are a total of 121 regionally-agreed upon standards for EEE to be harmonised with international standards, where Singapore has 118 direct-use and three modified adoptions of international standards. The three modified adoptions are listed below.

No.	Product	Test standard	Degree of Equivalence	Reason for deviation
1.	Residual current operated circuit breakers without integral overcurrent protection for household and similar uses (RCCB) - Part 1: General rules)	IEC 61008-1	Modification of SS 97: Part 1	SS 97: Part 1: 2005 is not identical to the IEC Standard because it included the national wiring code requirements for RCD.
2.	Household and similar electrical appliances - Safety - Part 2-35: Particular requirements for Instantaneous	IEC 60335-2-35	Modification of SS 146: Part 2: 5	SS 146 : Part 2 : 5 : 2007 is a modified adoption of International Standard IEC 60335-2-35 : 2002 (Edition 4.0), Safety

	Electric Water Heaters			<p>of household and similar electrical appliances –</p> <p>Particular requirements for instantaneous water heaters, published by the International Electrotechnical Commission. The modifications are specified below:</p> <p>Clause/Sub-clause Modifications</p> <p>6.1 Replace existing text by: ‘Bare element water heaters are not allowed.’</p> <p>Explanation: For compliance with local electrical installation code.</p>
3.	Household and similar electrical appliances - Safety - Part 2-21: Particular requirements for Electric Storage Water Heaters	IEC 60335-2-21	Modification of SS 146: Part 2: 8	SS 146 : Part 2 : 8 : 2007 is a modified adoption of International Standard IEC 60335-2-21 : 2004 (Edition 5.1) – Safety of household and similar electrical

				<p>appliances –</p> <p>Particular requirements for storage water heaters, published by the International Electrotechnical Commission. The modifications are specified below:</p> <p>Clause/Sub-clause Modifications</p> <p>6.1 Insert the following text at the beginning of the sub-clause: ‘Bare element water heaters are not allowed. ‘</p> <p>Explanation: For compliance with local electrical installation code.</p>
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### 3.5.3. *Conformity Assessment Procedures*

SPRING Singapore is appointed as the Designating Body with the responsibility of identifying and monitoring Conformity Assessment Bodies (CABs) under the ASEAN EEE MRA. The government agency has also identified Test Laboratories and Certification Bodies for listing under the ASEAN EEE MRA.

Type	Organisation
Listed Test Laboratory	TUV SUD PSB Pte Ltd
	Intertek Testing Services (S) Pte Ltd
	Singapore Electrical Testing Services
Certification Body	TUV SUD PSB Pte Ltd

Prior to designation, these testing laboratories and certification bodies must fulfill criteria set by SPRING Singapore where they are assessed on their competencies.

**A CAB must fulfil the following criteria:**

- a) It must be a legal entity, capable of suing and being sued in Singapore, and be located in Singapore;
- b) It must have sufficient capital and financial resources to maintain viable operations;
- c) It must demonstrate compliance to the relevant ISO/IEC standards OR must be a member of the IECEE CB Scheme for testing laboratories and IECEE CB-FCS for certification bodies, respectively;
  - ISO/IEC 17025: 2005 for testing laboratories;
  - ISO/IEC 17065: 2012 (previously known as ISO/IEC Guide 65: 1996) for product certification bodies.
  - The accreditation shall be relevant to the product types and technical regulations for which designation is sought; In addition, for application as a Designated Certification Body, the scope of designation it is applying must link up to its affiliated testing laboratory which is recognised by the Designating Authority as an Recognised Testing Laboratory (RTL) of the CPS Scheme.
- d) It shall not operate or be related to any other business that may compromise its role as CAB (Local) or CAB (Local-MRA), so that there is no risk of the CAB conducting Conformity Assessment unfairly or with bias in the conduct of its business;
- e) It must have the knowledge, capability and competence to perform the tests or certification to relevant requirements specified by the Designating Authority

- or stipulated under an MRA, which are applicable to its designation;
- f) In the case of an application for designation as a CAB (Local-MRA) for MRA partner, all requirements under the relevant MRA have to be fulfilled.
  - g) It shall provide to the Designating Authority such other information or documents as may be required by the Designating Authority;
  - h) It shall provide the Designating Authority or any such person as the Designating Authority may authorise access to the laboratory or other premises of the CAB to enable the Designating Authority or such person to observe and assess the testing and certification procedures of the CAB.

*Source:* SPRING Conformity Assessment Information Booklet,  
[http://www.spring.gov.sg/QualityStandards/CPS/Documents/SPRING\\_CABooklet.pdf](http://www.spring.gov.sg/QualityStandards/CPS/Documents/SPRING_CABooklet.pdf)

The list of Conformity Assessment Bodies and Recognised Testing Laboratories for Singapore is published on SPRING's website. It can be assessed through this link: <http://www.spring.gov.sg/QualityStandards/CPS/CPS/Pages/designated-bodies-labs.aspx>

Further to this, SPRING has also appointed the Singapore Accreditation Council (SAC) as the Accreditation Body to accredit the listed tested laboratories and certification bodies.

#### *3.5.4. Technical Regulations*

The ASEAN Harmonised Electrical and Electronic Equipment Regulatory Regime (AHEEERR) was signed on 9 December 2005 and defines the essential requirements that an EEE product shall meet. AMSs are expected to put in place all the necessary harmonised technical requirements and infrastructure to support the effective implementation of this agreement no later than 31 December 2010. Singapore has already met this requirement; its national legislation for the EEE sector is aligned with the provisions of the AHEEERR, and has been made available to the member states and the ASEAN secretariat.

However the ASEAN guidelines to determine the type of conformity assessment regime based on risk assessment for EEE has not been adopted at the national level. According to government officials, this is because there are differing views on the classification of EEE products. The AHEEERR stipulates two conformity assessment

systems, depending on the risk level of the EEE product. These conformity assessment systems are System 1 and System 5, as described in ISO/IEC 67.<sup>56</sup> High-risk EEE products will be subject to system 5 conformity assessment, whereas medium-risk products will be assessed based on system 1 conformity assessment. For low-risk products, the conformity assessment procedure SDoC (Supplier's Declaration of Conformity) is based on ISO/IEC 17050-1 or other procedures. Singapore does not see the need for such a stringent regime.

Under system 5 conformity assessment, product certification includes testing and assessment of the quality system involved. Surveillance of the quality system is conducted and samples of the product may be taken from either the market or the point of production or both. It is then assessed for ongoing conformity. This certification system includes:

- samples requested by the certification body;
- determination of characteristics by testing or assessment;
- initial assessment of the production process or the quality system, as applicable;
- evaluation of the test and assessment reports;
- decision;
- licence;
- surveillance of the production process or quality system or both of the organisation;
- surveillance by testing or inspection of samples from the factory or the open market, or both.

Based on our interview (Sep 2014) with SPRING Singapore, this issue will be deliberated at the next JSC EEE meeting.

Meanwhile, the feasibility study on the ASEAN Conformity Mark (ACM) shows that such a scheme is not feasible. The ACM scheme was mooted to indicate whether a product is in conformity with the ASEAN harmonised technical requirements. Any products stamped with the ACM will demonstrate compliance with the harmonised

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<sup>56</sup> ASEAN EEE Risk Assessment Guidelines, [http://mddb.apec.org/documents/2012/SCSC/WKSP1/12\\_scsc\\_wksp1\\_013.pdf](http://mddb.apec.org/documents/2012/SCSC/WKSP1/12_scsc_wksp1_013.pdf)

regulatory regimes of AMSs. ACCSQ made the decision to discontinue the Conformity Assessment Module related to ACM. On a related note, whilst the Post Market Surveillance regime in ASEAN for the EEE sector has been adopted by Singapore, the JSC EEE has yet to agree on the mechanism for the safety alert notification. This is expected to be completed at the end of 2015.

Finally, Singapore is responsible for drafting the Information Booklet on AHEEERR. The purpose of this booklet is to assist stakeholders, such as manufacturers, importers, traders, and Conformity Assessment Bodies in understanding the requirements and procedures specified in AHEEERR. As of September 2014, the exact timeline of the publication for this information booklet has not been decided on as there are still areas of the MRA on which consensus has not yet been reached, including the Conformity Assessment Procedure and Safety Alert System.

#### *3.5.5. Conclusion*

Singapore remains ready to comply with the ASEAN Harmonised Electrical and Electronic Equipment Regulatory Regime (AHEEERR) with the country's national legislation aligned with regional agreements as well as institutional capacity and linkages compared with 2011. Meanwhile, discussions of the conformity assessment procedure are ongoing as Singapore objects to the conformity assessment regime for EEE products that are classified as high risk. Separately, the Safety Alert system is still under development, which will strengthen post market surveillance for the EEE sector when an agreement is reached.

### **3.6. Medical Device**

#### *3.6.1. Headlines*

- Singapore has compared the AMDD requirements and the current Medical Device legislation, and identified the amendments needed.
- The country has also communicated with various stakeholders about the new AMDD requirements, although the national medical device regulations are mostly aligned with the AMDD.
- Since 2011, the draft AMDD undergone many discussions and AMSs have reached consensus. It has been endorsed by Singapore.

- Singapore’s timeline for legislative amendments is currently being worked out.

### 3.6.2. Harmonisation of standards

The harmonisation status of Medical Devices Product Standards as of 17 June 2013 is available on the ASEAN Secretariat website.<sup>57</sup> Where there are no national standards, ‘DIR’ is indicated. DIR refers to the direct use without adoption of the international standard as a national standard and no conflicting national standard. Singapore is employing DIR for 14 of the first priority medical devices and two of the second priority medical devices. The list of 16 identified standards is presented below:

#### First Priority

No.	Title of Standards	References
1	Medical electrical equipment – Part 1: General requirements for basic safety and essential performance	IEC 60601–1:2005 Third edition
2	Conformity assessment – General requirements for accreditation bodies accrediting conformity assessment bodies	ISO/IEC 17011
3	Medical devices – Quality management systems – Requirements for regulatory purposes	ISO 13485:2003
4	Medical devices – Quality management systems – Guidance on the application of ISO 13485: 2003	ISO/TR 14969:2004
5	Medical devices – Application of risk management to medical devices	ISO 14971:2007
6	Medical devices – Symbols to be used with medical device labels, labelling, and information to be supplied – Part 1: General requirements	ISO 15223–1:2007
7	Sterilisation of health care products – Ethylene oxide – Part 1: Requirements for development,	ISO 11135–1:2007

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<sup>57</sup> Harmonisation status of Medical Devices Product Standards, [http://www.asean.org/images/archive/SnC/medical\\_devices\\_standards\\_for\\_harmonisation\\_ao%2017%20june%202013.pdf](http://www.asean.org/images/archive/SnC/medical_devices_standards_for_harmonisation_ao%2017%20june%202013.pdf)

	validation, and routine control of a sterilization process for medical devices	
8	Sterilisation of health care products – Radiation – Part 1: Requirements for development, validation, and routine control of a sterilisation process for medical devices	ISO 11137–1:2006
9	Medical laboratories – Requirements for safety	ISO 15190:2003
10	Packaging for terminally sterilised medical devices – Part 2: Validation requirements for forming, sealing, and assembly processes	ISO 11607–2:2006
11	Clinical Investigation of Medical Devices for Human Subjects	ISO 14155–1:2003 ISO 14155–2:2003
12	Biological Evaluation of Medical Devices	ISO 10993–1 to -18
13	Contact Lens	ISO 14729–2001
14	Contact Lens Substances	ISO 14730–2000

### Second Priority

No.	Title of Standards	References
1	Non-invasive sphygmomanometers – Part 1: Requirements and test methods for non-automated measurement type	ISO 81060–1:2007
2	Medical electrical equipment – Part 2-19: Particular requirements for the basic safety and essential performance of infant incubators	IEC60601–2-19:2009 Second edition

Source: HSA.

In Singapore, the Health Sciences Authority (HSA), a statutory board of the Singapore Ministry of Health, regulates medical devices sector. Regulatory controls for medical devices are based on the risk associated with the use of the devices. Certain low-risk medical devices are exempted from product registration. Medical devices may be classified into four risk classes:

Class	Risk Level	Device Examples
A	Low Risk	Surgical retractors / tongue depressors
B	Low–moderate Risk	Hypodermic Needles / suction equipment
C	Moderate–high Risk	Lung ventilator / bone fixation plate
D	High Risk	Heart valves / implantable defibrillator

Source: HSA.<sup>58</sup>

With the passage of the Health Products Act 2007 in February 2007, HSA implemented the Health Products (Medical Devices) Regulations 2010 in three stages. Please refer to the table below:

Stage	Description
<b>Phase 1</b>	<p><b>From 1 November 2007</b>, the following duties and obligations will be imposed on medical device dealers. Medical device dealers must:</p> <ul style="list-style-type: none"> <li>Report adverse events to HSA within stipulated time frame</li> <li>Notify HSA prior to the initiation of a product recall</li> <li>Keep records of complaints and product distribution</li> </ul> <p>The false or misleading advertisements and promotions of medical devices will be prohibited. HSA can direct an advertiser to publish a ‘corrective advertisement’ for any false or misleading advertisements.</p>
<b>Phase 2</b>	<p><b>From 1 November 2008</b>, HSA has started accepting applications for licensing of dealers of medical devices and registration of medical device products.</p>
<b>Phase 3</b>	<p>The last phase of the implementation will be conducted in two stages:</p>

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[http://www.hsa.gov.sg/content/hsa/en/Health\\_Products\\_Regulation/Medical\\_Devices/Overview/Regulatory\\_Framework.html](http://www.hsa.gov.sg/content/hsa/en/Health_Products_Regulation/Medical_Devices/Overview/Regulatory_Framework.html)

**From Stage 1 (10 August 2010 onwards):**

Unlicensed manufacturing, importation, and wholesaling of medical device is prohibited

Class C and D medical devices (but excluding those medical devices currently licenced under the Radiation Protection Act by the Centre for Radiation Protection and Nuclear Science (CRPNS) of the National Environment Agency (NEA)) that are imported and supplied must meet one of the criteria below:

Listed on the Singapore Medical Device Register (SMDR);

Listed on the Transition List; or

Authorised via one of the Authorisation Routes.

**From Stage 2 (01 Jan 2012 onwards):**

Unless exempted from product registration, all medical devices, including class A and B medical devices, that are imported and supplied must meet one of the criteria below:

Listed on the Singapore Medical Device Register (SMDR);

Listed on the Transition List; or

Authorised via one of the Authorisation Routes.

Source: HSA<sup>59</sup>.

In addition, the HSA has an active post-market monitoring and surveillance program for medical devices in place since the implementation of the Voluntary Product Registration Scheme in 2002.

*3.6.3. Conformity Assessment Procedures*

In Singapore, there are no Conformity Assessment Bodies (CABs); the HSA is the Competent Authority, and is responsible for the licensing of dealers of medical devices and registration of medical devices products. The government agency also

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[http://www.hsa.gov.sg/content/hsa/en/Health\\_Products\\_Regulation/Medical\\_Devices/Overview/Regulatory\\_Framework.html](http://www.hsa.gov.sg/content/hsa/en/Health_Products_Regulation/Medical_Devices/Overview/Regulatory_Framework.html)

publishes the list of technical regulations applicable for conformity assessment of medical devices on its website.<sup>60</sup> According to the Medical Device Branch, Singapore's medical device regulations were drafted with reference to Global Harmonization Task Force<sup>61</sup> (GHTF) member countries. Whilst assessing the practice in place of the referencing agencies, alongside conformity assessment of medical devices, Singapore adopted an approach similar to that taken by Health Canada, US Food and Drug Administration (FDA), and Australia Therapeutic Goods Administration (TGA), where registration of medical devices is under the purview of the authority rather than being done by appointed conformity assessment bodies. A key advantage of having sector development and regulator under a centralised body is greater consistency and transparency.

#### *3.6.4. Technical Regulations*

ASEAN has been working on developing a standardised framework for regulating medical devices and has drafted a set of broad principles called the ASEAN Medical Devices Directive (AMDD), which came out in 2012. AMDD lays out the basic requirements for a harmonised classification system, medical device safety and performance, conformity assessments, and a Common Submission Dossier Template (CSDT), which are expected to be implemented by December 2014. It is not a legally binding document, but serves as a model for ASEAN member states. Singapore has ratified the AMDD and the relevant legislations are largely aligned with the AMDD provisions, except for a minor portion that requires legislative amendments. These amendments apply to the definitions of the present legislation, which needs to be aligned with the AMDD. Singapore expects the full regulatory alignment to be completed in 2015.

In addition to establishing pre-market requirements, the AMDD also provides a list of documentation requirements for complaints and adverse events in post-market

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<sup>60</sup> HSA, Health Products Regulations, Medical Devices, Regulatory Guidances, [http://www.hsa.gov.sg/content/hsa/en/Health\\_Products\\_Regulation/Medical\\_Devices/Overview/Guidances\\_for\\_Medical\\_Device\\_Registration.html](http://www.hsa.gov.sg/content/hsa/en/Health_Products_Regulation/Medical_Devices/Overview/Guidances_for_Medical_Device_Registration.html)

<sup>61</sup> The Global Harmonization Task Force (GHTF) was founded in 1993 by the government and industry representatives of Australia, Canada, Japan, the European Union, and the United States. The purpose of the GHTF is to encourage convergence in standards and regulatory practices related to the safety, performance, and quality of medical devices. The GHTF also promotes technological innovation and facilitates international trade. The primary means by which its goals are accomplished is via the publication and dissemination of harmonised guidance documents for basic regulatory practices.

surveillance. Under this guideline, manufacturers, authorised representatives, and distributors are required to maintain distribution and complaint records. They must also conduct investigations of reported problems, and keep all records of inspection for the regulatory authority of the AMSs. Furthermore, medical device dealers and healthcare professionals are obligated to report on all adverse events related to the malfunction or deterioration of a medical device. Once it has been notified to the regulator, the relevant government agency is responsible for investigating the event. They must then notify other ASEAN countries of the event and any corrective actions taken. Currently, there is no post-market alert system in place. Nonetheless, Singapore is of the view that the post-market surveillance mechanism is functioning well.

#### *3.6.5. Conclusion*

Singapore has carried out a thorough comparison of AMDD requirements with current medical device legislation. In addition, stakeholders are well informed about the implementation of the AMDD requirements into national law, although the national medical device regulations are mostly aligned with the AMDD. Since 2011, the draft AMDD has undergone many discussions and AMSs have achieved consensus on it. Singapore has endorsed it and is currently working on the timeline for legislative amendments to be fully aligned with the AMDD. It expects the full regulatory alignment to be completed in 2015.

### **3.7. Pharmaceutical**

#### *3.7.1. Headlines*

- Singapore's national legislation is fully aligned with ACTD. There is no need for amendments to implement the ACTD and ACTR.
- However, as the ASEAN guidelines do not cover all technical areas of quality, safety, and efficacy, Singapore uses other international guidelines as reference in such cases.
- Singapore is a member of the Pharmaceutical Inspection Convention and Pharmaceutical Inspection Co-operation Scheme (jointly referred to as PIC/S), which means that it will recognise Good Manufacturing Practice (GMP)

inspections and assessments carried out by other PIC/S member countries without the need for another inspection.

### 3.7.2. Technical Regulations

The Health Sciences Authority (HSA) is responsible at the national level for coordinating the implementation of the ASEAN Common Technical Dossier (ACTD). The Health Products Regulation Group under the HSA administers the following pieces of legislation for the regulation of the pharmaceutical industry:

Legislation	Description
<b>The Medicines Act and its Regulations</b>	The Medicines Act was gazetted in 1977 to provide comprehensive control of all aspects of dealings in medicinal and its related products (Western medicines, Chinese proprietary medicines, cosmetic products, contact lens substances, etc.)
<b>The Health Products Act and its Regulations</b>	<p>The Health Products Act was introduced in 2007. The purposes of this Act are:</p> <ul style="list-style-type: none"> <li>• to provide for the categorisation of health products in accordance with their different characteristics and uses;</li> <li>• to provide the framework for a uniform approach for the registration of health products; and the regulation of the manufacture, import, supply, storage, presentation, and advertisement of health products</li> <li>• to allow for each category of health product to be registered and regulated by reference to its formulation, composition, design specification, quality, safety, and efficacy and within the framework provided by this Act; and</li> <li>• to prescribe the standards for health products in relation to their formulation, composition, design specification, quality, safety, efficacy, and presentation</li> </ul>
<b>The Poisons Act and its Rules</b>	The Poisons Act, which was first gazetted in 1939, regulates the importation, possession, and sales of potent medicinal substances (poisons) so as to prevent misuse or illicit diversion of poisons. Poisons are listed under the Poisons Act and are identified by

	<p>their chemical or generic names. The Poison Rules, which are included in the Poisons Act, serve to ensure the general safe handling of poisons</p>
<p><b>The Medicines (Advertisement and Sale) Act</b></p>	<p>The Medicines (Advertisement and Sale) Act was introduced in 1956 for two purposes:</p> <ul style="list-style-type: none"> <li>• to curb the proliferation of spurious and misleading advertisements for medicines and medical services, and</li> <li>• to regulate the sale of substances recommended as a medicine</li> </ul>
<p><b>The Sale of Drugs Act</b></p>	<p>The Sale of Drugs Act was first introduced in 1919 as the Sale of Food and Drugs Ordinance, which was operated by the Municipality of Singapore. In 1973, the law was vertically split into the Sale of Food Act and the Sale of Drugs Act. The Sale of Food Act was then delegated to the Ministry of the Environment and the Sale of Drugs Act to the Ministry of Health.</p> <ul style="list-style-type: none"> <li>• The purpose of the Sale of Drugs Act is to ensure that consumers are supplied with the quantity and quality of drugs demanded by them, explicitly or implicitly.</li> <li>• Thus the sale of adulterated drugs is an offence only when the purchaser is not fully informed of the nature of the adulteration at the time of purchase, and only under certain circumstances may a drug be presumed to be adulterated or that it be deemed to be unfit for human consumption.</li> </ul>

Source: HAS.

[http://www.hsa.gov.sg/content/hsa/en/Health\\_Products\\_Regulation/Western\\_Medicines/Overview/Legislation.html](http://www.hsa.gov.sg/content/hsa/en/Health_Products_Regulation/Western_Medicines/Overview/Legislation.html)

According to the HSA, Singapore’s national legislation is aligned with the ACTD. There is no need for amendments to implement the ACTD and ACTR. The country has transposed applicable national laws and regulations on the technical ‘Quality, Safety, Efficacy’ guidelines under the ASEAN Common Technical Requirements (ACTR). However, as the ASEAN guidelines do not cover all technical areas of quality, safety, and efficacy, Singapore uses other international guidelines as reference in such cases.

Singapore also participates in the Post Market Alert System (PMAS) for the pharmaceutical sector. In cases where the unsafe pharmaceutical products are from Singapore, the HSA would assess the root cause of the issue and determine the risks and benefits of the pharmaceutical products as part of a correction action plan. The agency would take actions regarding the unsafe pharmaceutical products in question in the form of recall, suspension of licence, issuance of a ‘Dear Healthcare Professional’ Letter, and/or product label changes, etc.

### *3.7.3. Conformity Assessment Procedures*

Singapore is a member of the Pharmaceutical Inspection Convention and Pharmaceutical Inspection Co-operation Scheme (jointly referred to as PIC/S), which means that it will recognise Good Manufacturing Practice (GMP) inspections and assessments carried out by other PIC/S member countries without the need for another inspection. In ASEAN, apart from Singapore, only Malaysia and Indonesia are members of the PIC/S. Thailand FDA applied to join the PIC/S in 2006, but its application lapsed in 2012. Philippines FDA applied for PIC/S membership in June 2009 and the application is still in progress. One of the essential criteria for the ASEAN MRA on GMP inspection (signed on 10 April 2009) is PIC/S membership accession.

There are now three listed ASEAN inspection services, which are accepted by the Joint Sectoral Committee (JSC) on GMP MRA, and, incidentally, they are all PIC/S members:

1. Health Sciences Authority, Singapore;
2. National Pharmaceutical Control Bureau (NPCB), Malaysia;
3. National Agency for Drug and Food Control (NADFC), Indonesia.

The HSA appointed the Designating Body that identified the above-listed inspection services to carry out conformity assessment of pharmaceutical products. Meanwhile, the JSC on GMP MRA will provide oversight for maintaining and monitoring the Listed Inspection Services through MRA implementation and Panel of Experts assessment.

Technical assistance is also provided to enhance the capability of regulators and industry to meet the requirements of the ACTD. Singapore has established a new

inspector training course and internal inspection training or qualification programmes for GMP/GDP auditors.

#### *3.7.4. Registration Procedures*

In many AMSs, registration procedures rely on the approval and assessment of reference countries, as in the case of non-ICH<sup>62</sup> countries. As such, many developing countries ask for a Certificate of Pharmaceutical Product (CPP) issued by the health authority of the reference country. This CPP enables countries with limited drug regulatory capacity to obtain partial assurance from exporting countries that the pharmaceutical products, which they plan to import, are safe, effective, and of good quality.

There are different practices about the amount and the timing of the CPP. In some developing up to three CPP are required for submission, which may serve as a trade barrier or lead to delayed access of pharmaceutical products to the public.

For Singapore, the HSA has the knowledge and capacity to evaluate clinical data and its national registration procedures permit the submission of a product without a CPP. This is akin to a type of risk-based approach. However, it is apparent that the more CPPs are provided, the faster is the evaluation by HSA as they can rely on reference or benchmark approvals.

Pharmaceutical product registration procedures have been implemented since 1987, and have been steadily developed. Singapore has transposed all ASEAN guidelines into national law. HSA is one of the main drivers of pharmaceutical harmonisation within the region. In several cases Singapore was the first country to participate in trial implementations of new initiatives within ASEAN, such as ACTD, PMA, MRA, or GMP inspections.

#### *3.7.5. Conclusion*

Given that Singapore is already a PIC/S member and its national legislation has already been aligned with ACTD, the status of the country regarding integration is identical to the 2011 study. The island state is ready for integration.

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<sup>62</sup> ICH refers to International Conference on Harmonization of Technical Requirements for Registration of Pharmaceuticals for Human Use.

### *Recommendations and Conclusion*

Addressing technical barriers to trade (TBT) is critical to Singapore as part of trade facilitation to boost its export competitiveness and for its reputation as an entrepôt given the importance of trade to the nation's economy. Whilst seeking to ensure quality and safety of products for consumers, Singapore is also keen to avoid standards and conformance assessment measures becoming technical barriers to trade. Therefore, in most sectors, the country adopted international standards or aligned the technical requirements to those most widely used. On several occasions, Singapore modified some of these international standards to adapt to local conditions.

Minimising technical barriers to trade is also a key priority of ASEAN's efforts in trade facilitation, to prepare the region for the goal of achieving a single market and production base under the ASEAN Economic Community by 2015. The status of the five sectors under study below has shown some improvements since 2011, particularly in the Medical Devices sector.

<b>Sector</b>	<b>MRA</b>	<b>Status (As of Sep 2014)</b>
Automotive	ASEAN MRA on Type Approval of Automotive products	In progress
Cosmetic	ASEAN Cosmetic Directive	Implemented
Electrical and Electronic Equipment (EEE)	ASEAN Harmonized Electrical and Electronic Equipment Regulatory Regime (AHEEERR)	Implemented
Medical Devices	ASEAN Medical Devices Directive	Close to finalisation
Pharmaceutical	ASEAN Common Technical Dossier	Implemented

Within ASEAN, Singapore can be regarded as one of the countries with the most highly developed and transparent standards and conformance systems in the region.

Singapore has transposed most ASEAN guidelines into national legislation. The region also has made modest progress towards standards harmonisation in the ASEAN priority sectors, although more needs to be done for the region to achieve its AEC 2015 targets.

As the national standards and accreditation body, SPRING develops and promotes an internationally recognised standards and quality assurance infrastructure that builds trust in Singapore's enterprises, products, and services, thereby making them globally competitive and facilitating global trade. In the five sectors under research, SPRING is the coordinating agency whilst several other agencies, notably the Health Sciences Authority and the Land Transport Authority, oversee the activities of specific sectors.

#### **4. MRA in Professional Services**

The Mutually Recognised Arrangements (MRAs) on professional services are an initiative to facilitate the mobility of skilled labour in ASEAN. According to the mid-term review of the implementation of the AEC blueprint, considerable progress has been observed in architectural services and engineering services. Under these professional services, the implementation mechanism and processes at both regional and national levels have been established. The titles of ASEAN Architect (AA) and ASEAN Chartered Professional Engineer (ACPE) to certify the respective architect and engineer to be suitably qualified and experienced to provide architectural and engineering services in any AMS are a testament to the efforts made so far.

Singapore has in recent years generally maintained a liberal immigration policy, primarily due to its small domestic labour force and low birth rate. This is reflected in the fact that most professional designations have no national requirement. This holds true for the three professional services under review: architectural, engineering, and nursing. Although in principle this means that any ASEAN national may register to be an architect, professional engineer, or a nurse in Singapore, the respective profession's regulator has set out criteria for registration which may prove restrictive. For instance, the list of accredited qualifications for registration to be an architect or

professional engineer in Singapore mostly comprises of local and Western tertiary institutions. This may act as a barrier for ASEAN nationals who obtain their qualifications in their countries.

Moreover, although they may work as a foreign architect or a foreign professional engineer, they are usually not permitted to provide such services independently and are required to collaborate with a locally registered architect or professional engineer. For nursing professionals, interested parties from any ASEAN countries must have an offer of employment from a healthcare institution in Singapore before their application for registration/enrolment can be considered.

## **4.1. Architectural Services**

### *4.1.1. Headlines*

- In Singapore, there is no nationality pre-requisite for registration as an architect
- A Registered Foreign Architect (RFA) shall not be eligible to work in independent practice in Singapore, unless specifically permitted by the Singapore Professional Regulatory Authority (PRA).
- Board of Architects (BOA) Singapore may require a Registered Foreign Architect (RFA) to be subject to some form of supplemental assessment.
- As of May 2015, the Architects Act has yet to be amended following the December 2013 Public Consultation to address the issue of Registered Foreign Architects

### *4.1.2. Introduction*

The governments of the member countries of the ASEAN agreed on the ASEAN Mutual Recognitions Arrangement (MRA) on Architectural Services and signed the agreement on 19 November 2007. The MRA aims to:

- a) Facilitate mobility of Architects in ASEAN.
- b) Exchange information to promote adoption of best practices on standards of architectural education, professional practice, and qualifications.
- c) Conform to the spirit of ASEAN co-operation based on fair distribution of resources and benefits through collaborative research.

d) Encourage, facilitate, and establish mutual recognition of Architects and set up standards and commitment of technological transfer amongst AMSs.

Under the MRA, a professional architect or practitioner who is a national from an AMS, has the qualifications and practical experience, and meets the conditions, for registration as an ASEAN Architect may apply to be placed on the ASEAN Architects Register (AAR) and accorded the title of ASEAN Architect (AA). Furthermore, the Professional Regulatory Authority (PRA) of each participating AMS will authorise a Monitoring Committee (MC) to receive and process applications from its professional architects or practitioners for registration as AA and to maintain the ASEAN Architects Register (AAR).

The MRA also specifies that an AA who wishes to provide professional architectural services in another participating AMS shall be eligible to apply to the PRA of a host participating AMS to be registered as a Registered Foreign Architect (RFA). Being an RFA in the host country will allow the AA to work in collaboration with designated Architects in the host country, whilst remaining subject to the domestic laws and regulations of the host country.

#### *4.1.3. Singapore's regulatory framework*

The Board of Architects (BOA) Singapore is the Professional Regulatory Authority in Singapore. BOA is a statutory body established to administer the Architects Act 1991. The Architects Act sets out the general qualifications and requirements for registration of Architects and regulates the conduct of Architects and corporations that supply architectural services in Singapore. The applicable legislation pertaining to the Architects Profession is as follows:

- The Architects Act 1991
- The Architects Rules 1991
- The Architects (Professional Conduct and Ethics) Rules
- Architects (Investigation Committees)(Revocation) Rules 2005
- Architects (Election of Board members) 2005
- The Schedule (Code of Professional Conduct and Ethics) Part I
- The Schedule (Code of Professional and Ethics) Part II
- The Third Schedule

In addition, BOA has appointed and authorised the Singapore Monitoring Committee (MC), pursuant to Articles 4.2.1 and 4.2.2 along with item 1.2 of Appendix B of the MRA, as the competent and responsible body to exercise the functions of assessing and certifying the qualifications and practical experience of practitioners, and to register them as being technically and morally qualified to undertake independent architectural practice for the purposes of registration as ASEAN Architect (AA).

The Singapore MC comprises of the President of the BOA, who shall also be the chair of the MC, and members appointed by the BOA.

#### **Members of Singapore's Monitoring Committee**

Chairperson:

- Ms. Rita Soh (President, Board of Architects)

Members:

- Mr. Ng Lye Hock, Larry (Registrar, Board of Architects)
- Mr. Chan Eng Chye, Theodore (President, Singapore Institute of Architects)
- Mrs. Koh-Lim Wen Gin (Board Member, Board of Architects)
- Ms. Wo Mei Lan (Board Member, Board of Architects)
- Mr. Tan Shao Yen (Board Member, Board of Architects)
- Mr. Khoo Peng Beng (Board Member, Board of Architects)
- Mr. Chan Sui Him (Immediate Past President, Board of Architects)

#### *4.1.4. Architectural Services in Singapore*

As of 2013, there are a total of 1,713 registered professional architects in the country, 1,227 (or 72 percent) of them have a practicing certificate and 486 do not. There are also 12 APEC Architects registered under the APEC Architect Project and 39 registered as ASEAN Architects. In terms of the type of practice, there are 673 architectural practices, with 402 (or nearly 60 percent) incorporated as sole proprietorships. The second largest type of practice is a corporate body (Architecture), of which there are 116. Partnerships, of which there are 57 (or less

than 10 percent of the total), are the least common type of practice. The table below shows the breakdown.

Type of Practice	Number	Composition (%)
Total	673	100
Sole Proprietorship	402	59.7
Partnership	57	8.5
Body Corporate (Architectural)	116	17.2
Body Corporate (Multi-disciplinary)	98	14.6

Source: ASEAN Architect Survey – AAC20.

#### *4.1.5. Authorisation to work as Registered Foreign Architects*

An ASEAN Architect (AA) may apply to the BOA Singapore to work as a Registered Foreign Architect (RFA) in Singapore. Upon acceptance and payment of a prescribed fee, the Registered Foreign Architect (RFA) will be permitted by the BOA to work in collaboration with designated local Architects. However, the RFA will not be eligible to work in independent practice to certify architectural works, which is required by any written law to be signed by an architect or qualified person for the purposes of submission to the regulatory authorities unless he/she is registered as an Architect in accordance with the Architects Act by the BOA.

In addition, BOA shall monitor and assess the professional practice of Registered Foreign Architects (RFAs) to ensure compliance with the MRA. The BOA may prepare rules, which shall not contradict or modify any of the provisions in the MRA, for the purposes of maintaining high standards of professional and ethical practice in architecture.

#### *4.1.6. Privileges and obligations of a Registered Foreign Architect (RFA)*

A Registered Foreign Architect (RFA) shall not be eligible to work in independent practice in Singapore, unless specifically permitted by the Singapore Professional Regulatory Authority (PRA). As the Singapore Professional Regulatory Authority (PRA) has statutory responsibility to register and/or licence a practitioner so as to protect the health, safety, environment, and welfare of the community within its jurisdiction, it may require a Registered Foreign Architect (RFA) to be subject to

some form of supplemental assessment, which aims to determine that the Registered Foreign Architect (RFA):

- a) understands the general principles behind applicable codes of practice and laws in Singapore;
- b) has demonstrated a capacity to apply such principles safely and efficiently; and
- c) is familiar with other special requirements of operating in Singapore.

A Registered Foreign Architect (RFA) shall provide architectural services only in the areas of competence as may be recognised and approved by the BOA. He shall also be bound by:

- a) codes of professional conduct in accordance with the policy on ethics and conduct established and enforced by the country in which he is registered as an ASEAN Architect (AA); and
- b) prevailing Singapore laws and regulations in which he is permitted to work as a Registered Foreign Architect (RFA).

#### *4.1.7. Review of the Architects Act*

In 2011, the Registrar of the BOA reported in the earlier survey by ERIA and SIIA that the Architects Act will be amended to address the issue of Registered Foreign Architects and expected the revisions to be completed within a year. On 9 December 2013, the BOA conducted a public consultation to seek feedback on proposed amendments to the Architects Act.<sup>63</sup> The proposed revisions are amendments which would give effect to agreements signed under the Trilateral Agreement, which includes the ASEAN Framework Agreement of Services (AFAS) under which registered architects in AMSs are allowed to practice in Singapore in collaboration with a local architecture practice as Registered Foreign Architects (RFAs). The Act would also be amended to specify that foreign architects, except those under the Trilateral Agreement, are only permitted to practice in collaboration with a licenced local architectural practice or with a registered architect.

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[http://www.boa.gov.sg/download/Public\\_Consultant\\_on\\_Proposed\\_Amendment\\_to\\_Architects\\_Act.pdf](http://www.boa.gov.sg/download/Public_Consultant_on_Proposed_Amendment_to_Architects_Act.pdf)

Collaborations between local and foreign architects would be effected only after approval by the BOA and valid only for a specific project. As of May 2015, the Architects Act has yet to be amended following the December 2013 Public Consultation.

On a related note, in a January 2014 interview<sup>64</sup> in *Archinesia*, incumbent President of the Singapore Institute of Architects, Theodore Chan, said that whilst Singapore has ‘some Registered Foreign Architects, they do not handle projects independently (sic). He added that ‘the idea of foreign architects obtaining a local practicing licence and practising fully is not really catching on’. He noted that in some countries like the Philippines, Thailand, and Malaysia, one needs to be a citizen to obtain a practising licence. He recommended changing this if the ASEAN MRA is to be taken seriously.

In Singapore, there is no nationality pre-requisite for registration as an architect as long as the architect meets two general requirements:

1. an approved academic qualification in architecture; and
2. appropriate practical experience in architectural work.

In addition, the Board must be satisfied that an applicant for registration is a fit and proper person.

## **4.2. Engineering Services**

### *4.2.1. Headlines*

- Over the past four years, the proportion of non-Singaporean registered Professional Engineers to total Professional Engineers registered has been steady at around 23 percent to 25 percent.
- There are 218 professional engineers who are registered as ASEAN Chartered Professional Engineers (ACPE).
- A Registered Foreign Professional Engineer (RFPE) will be permitted by the Professional Engineers Board (PEB) to work in collaboration with designated

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<sup>64</sup> <http://archinesia.com/viewpoints/interview-with-theodore-ec-chan-president-of-singapore-institute-of-architects>

local Professional Engineers. However the RFPE will not be eligible to work in independent practice to certify engineering works.

- An ASEAN Chartered Professional Engineer (ACPE) do not require additional qualifications to become a Registered Foreign Professional Engineer (RFPE) in Singapore

#### *4.2.2. Introduction*

The governments of the member countries of ASEAN agreed on the ASEAN Mutual Recognitions Arrangement (MRA) on Engineering Services and signed the agreement on 9 December 2005. The MRA aims to

- a) facilitate mobility of engineering services professionals; and
- b) exchange information to promote adoption of best practices on standards and qualifications.

Under the MRA, a professional engineer or practitioner who is a national of an AMS and has the qualifications, practical experience, and meets the conditions for registration as an ASEAN Chartered Professional Engineer may apply to be placed on the ASEAN Chartered Professional Engineer Register (ACPER) and accorded the title of ASEAN Chartered Professional Engineer (ACPE). Furthermore, the Professional Regulatory Authority (PRA) of each participating AMS will authorise a Monitoring Committee (MC) to receive and process applications from its professional engineers or practitioners for registration as ACPER and to maintain the ASEAN Chartered Professional Engineer Register (ACPER).

The MRA also specifies that an ACPE who wishes to provide professional engineering services in another participating AMS shall be eligible to apply to the PRA of a host participating AMS to be registered as a Registered Foreign Professional Engineer (RFPE). Being an RFPE in the host country will allow the ACPE to work in collaboration with designated Professional Engineers in the host country, whilst remaining subject to domestic laws and regulations of the host country.

#### *4.2.3. Singapore's regulatory framework*

The Professional Engineers Board (PEB) Singapore is the Professional Regulatory Authority in Singapore. The PEB is a statutory body established to

administer the Professional Engineers Act (PE Act). The PE Act sets out the general qualifications and requirements for registration of professional engineers, and regulates the conduct of professional engineers and corporations that supply professional engineering services in Singapore. The applicable legislation pertaining to the Professional Engineer Profession is as follows:

- Professional Engineers Act
- Professional Engineers Board Rules
- Professional Engineers Rules
- Professional Engineers (Amendment) Rules 2014
- Professional Engineers (Code of Professional Conduct and Ethics) Rules
- Professional Engineers (Approved Qualifications) Notification 2009
- Professional Engineers (Prescribed Amount of Paid-Up Capital) Notification 2005

There are other regulatory authorities that regulate engineering works in prescribed branches of engineering (or disciplines) as specified in section 10(8) 1 of the Professional Engineers Act, namely those in the building and construction industry, in other words, civil, electrical, and mechanical engineering. These regulatory authorities require the design of professional engineering works in these prescribed branches/disciplines to be certified by qualified persons who must be registered with the PEB as Professional Engineers.

In addition, the PEB has appointed and authorised the Singapore Monitoring Committee (MC), pursuant to Articles 4.2.2 and item 1.2 of Appendix II of the MRA, as the competent and responsible body to assess and certify the qualifications and practical experience of practitioners, and to register them as being technically and morally qualified to undertake independent professional engineering practice for the purposes of registration as ASEAN Chartered Professional Engineer (ACPE).

The Singapore MC comprises of the President of the PEB who shall also be the chair of the MC, and members appointed by the PEB. The MC was revised on 17 January 2013 and the exact composition of the Committee is unknown. It is likely that the PEB registrar and the presidents of respective professional associations are members.

## Possible Members of Singapore's Monitoring Committee

Chairperson:

- Er. Lau Joo Ming (President, Professional Engineers Board)

Members:

- Er. Chin Jen Chyi (Registrar, Professional Engineers Board)
- Er. Chong Kee Sen (President, Institution of Engineers Singapore)
- Er. Ling Shiang Yun (President, Association of Consulting Engineers Singapore)

### 4.2.4. Engineering Services in Singapore

On 31 December 2013, there were a total of 3,560 professional engineers on the register maintained under Section 8(1)(a) of the Professional Engineers Act. The table below shows the breakdown and distribution:

#### Number of Professional Engineers Registered on 31 Dec. 2013

Branch of Engineering	Singapore	Non-Singaporean	Total
<b>Total</b>	<b>2,756</b>	<b>804</b>	<b>3,560</b>
Civil and Structural	1,232	547	1,779
Electrical	716	110	826
Mechanical	718	134	852
Others <sup>^</sup>	90	13	103

<sup>^</sup> Others include Aeronautical, Chemical, Electronic, Environmental, Industrial, Information Technology, Marine, Naval, Architecture, and Production.

Over the past four years, the proportion of non-Singaporean registered Professional Engineers to total Professional Engineers registered is steady at around 23 percent to 25 percent. The table below shows the breakdown from 2010 to 2013.

**Breakdown of number of Professional Engineers Registered by Singaporeans and foreigners (2010–2013)**

Number of Registered PE	2010	2011	2012	2013
Total	3,375	3,414	3,491	3,560
Singaporeans	2,600	2,572	2,694	2,756
Non-Singaporeans	775	842	797	804

Source: PEB annual reports.

However, according to the PEB Registrar, there are no RFPEs actually registered in Singapore. This could be due to the fact that there is no nationality requirement to be a registered engineer in the city-state.

On the Annual Register of Practitioners, there were a total of 2,209 registered professional engineers in the country, of which 858 (or 39 percent) have a practicing certificate and 1,351 did not apply for practising certificates for 2013. There are 218 professional engineers who are registered as ASEAN Chartered Professional Engineers (ACPE), according to the PEB Singapore. In terms of the type of licenced practices, there were 171 licensees at the end of 2013, 145 (or 85 percent) of which were incorporated as limited corporations (see table below).

Type of Corporations/Partnerships	Number	Composition (%)
Total	171	100
Limited Corporations	145	85.0
Unlimited Corporations	6	3.5
Multi-discipline/Limited Liability Partnership	20	11.5

Source: PEB Annual Report 2013.

*4.2.5. Authorisation to work as Registered Foreign Professional Engineers*

An ASEAN Chartered Professional Engineers (ACPE) may apply to the PEB Singapore to work as a Registered Foreign Professional Engineer (RFPE) in Singapore. Upon acceptance and payment of a prescribed fee, the RFPE will be permitted by the PEB to work in collaboration with designated local Professional Engineers. However, the **RFPE will not be eligible to work in independent**

**practice** to certify engineering works, which is required by any written law to be signed by a professional engineer or qualified person for the purposes of submission to regulatory authorities, unless he/she is registered as a professional engineer in accordance with the Professional Engineers Act by the PEB.

In addition, the PEB shall monitor and assess the professional practice of RFPEs to ensure compliance with the MRA. The PEB may prepare rules, which shall not contradict or modify any of the provisions in the MRA, for the purposes of maintaining high standards of professional and ethical practice in engineering.

#### *4.2.6. Privilege and obligation of a Registered Foreign Professional Engineer (RFPE)*

An RFPE shall not be eligible to work in independent practice in Singapore, unless specifically permitted by Singapore Professional Regulatory Authority (PRA). As the PRA has statutory responsibility to register and/or licence a practitioner so as to protect the health, safety, environment, and welfare of the community within its jurisdiction, **it may subject an RFPE to some form of supplemental assessment**, which aims to determine that the RFPE:

- a) understands the general principles behind applicable codes of practice and laws in Singapore;
- b) has demonstrated a capacity to apply such principles safely and efficiently; and
- c) is familiar with other special requirements of operating in Singapore.

An RFPE shall provide engineering services only in the areas of competence recognised and approved by the PEB. He shall also be bound by:

- a) codes of professional conduct in accordance with the policy on ethics and conduct established and enforced by the country in which he is registered as an ASEAN Chartered Professional Engineer (ACPE); and
- b) prevailing Singapore laws and regulations in which he is permitted to work as an RFPE.

### **4.3. Nursing Services**

#### *4.3.1. Headlines*

- Due to Singapore's small size, nursing services increasingly rely on foreign nurses to meet the demand of the public and private healthcare sectors.
- The proportion of foreign nurses (both registered and enrolled) who are from AMSs are increasing. The foreign nurses from ASEAN are mainly from Malaysia, the Philippines, and the Republic of the Union of Myanmar.
- Foreign trained nurses and midwives who wish to work in Singapore must be registered or enrolled with the Singapore Nursing Board (SNB).

#### *4.3.2. Introduction*

The governments of the member countries of ASEAN agreed on the ASEAN Mutual Recognitions Arrangement (MRA) on Nursing Services and signed the agreement on 8 December 2006. The MRA aims to:

- a) facilitate mobility of nursing professionals within ASEAN;
- b) exchange information and expertise on standards and qualifications;
- c) promote adoption of best practices on professional nursing services; and
- d) provide opportunities for capacity building and training of nurses.

Unlike architectural or engineering services, there are no 'ASEAN Nurses' for nursing professionals within ASEAN. The MRA seeks to have a common platform to evaluate, register, and monitor foreign nurses. According to Article 3.1 of the ASEAN MRA on Nursing Services, a Foreign Nurse may apply for registration or a licence in a Host Country to be recognised and allowed to practise nursing in accordance with the laws and regulations of the Host Country concerned, subject to the following conditions:

- Nursing Qualification;
- Valid professional registration and/or licence from the Country of Origin and a current practising licence or certificate or any relevant certifying documents;

- Minimum practical experience in the practice of nursing of no less than three continuous years prior to the application;
- Compliance with satisfactory continuing professional development in accordance with the Policy on Continuing Professional Development in nursing, as may be mandated by the NRA of the Country of Origin;
- Certification from the NRA of the Country of Origin of no record or pending investigation of having violated any technical, professional, or ethical standards, locally or internationally, in the practice of nursing; and
- Compliance with any other requirements, such as personal medical examination, induction program, or competence assessment, as may be imposed on any application for registration and/or licence as deemed fit by the NRA or any other relevant authority or the Government of the Host Country concerned.

#### *4.3.3. Singapore's regulatory framework*

Under the Nurses and Midwives Act (Chapter 209), a person must be registered or enrolled with the Singapore Nursing Board (SNB) and possess a valid Practising Certificate (PC) to practise nursing and/or midwifery in Singapore. It is an offence to practise nursing or midwifery without a valid practising certificate, pursuant to Section 26 (1) of the Nurses and Midwives Act.

The SNB is the regulatory authority for nurses and midwives in Singapore. It oversees the registration and enrolment of nurses, the registration of midwives, and the certification of Advanced Practice Nurses and related matters. The Nurses and Midwives Act established the scope and functions of the SNB:

The functions of the Board are:

- a) to approve or reject applications for registration and enrolment of nurses and for registration of midwives;
- b) to approve or reject applications for certification of Advanced Practice Nurses;
- c) to issue practising certificates;

- d) to accredit –
  - i) courses in Singapore for the purpose of registration and enrolment of nurses, registration of midwives, and certification of Advanced Practice Nurses;
  - ii) courses in Singapore which provide qualifications in nursing or midwifery in addition to those required for registration and enrolment; and
  - iii) the institutions in Singapore offering any of these courses;
- e) to regulate standards for the training and education of registered nurses, enrolled nurses, registered midwives, and Advanced Practice Nurses;
- f) to regulate the standards and scope of practice of registered nurses, enrolled nurses, registered midwives, and Advanced Practice Nurses;
- g) to regulate the professional conduct and ethics of registered nurses, enrolled nurses, registered midwives, and Advanced Practice Nurses; and
- h) generally to undertake any such acts or matters as necessary or authorised to be carried out under the Act.

#### *4.3.4. Nursing Services in Singapore*

As of 31 December 2013, there were a total of 27,556 registered nurses, 8,273 enrolled nurses, and 246 registered midwives on the register maintained under Section 13(1)(a)/(b)/(c) of the Nurses and Midwives Act. The table below shows the breakdown and distribution:

**Breakdown of Number of Registered/Enrolled Nurses and Registered Midwives by Citizenship (2009–2013)**

Type of Nursing Professional	2009	2010	2011	2012	2013
<b>Registered Nurses - Total</b>	<b>19,733</b>	<b>21,575</b>	<b>23,598</b>	<b>25,971</b>	<b>27,556</b>
Singaporeans/PR	17,227	18,176	19,020	19,912	20,565
Foreigners – ASEAN	1,637	2,393	3,432	4,662	5,417
Foreigners – Non-ASEAN	869	1,006	1,146	1,397	1,574
<b>Enrolled Nurses - Total</b>	<b>6,765</b>	<b>7,478</b>	<b>7,869</b>	<b>8,274</b>	<b>8,273</b>
Singaporeans/PR	4,873	5,025	5,148	5,223	5,277
Foreigners – ASEAN	1,184	1,613	1,825	2,160	2,198
Foreigners – Non-ASEAN	708	840	896	891	848
<b>Registered Midwives* - Total</b>	<b>294</b>	<b>287</b>	<b>282</b>	<b>262</b>	<b>246</b>
Singaporeans/PR	289	281	274	252	231
Foreigners – ASEAN	4	3	4	5	6
Foreigners – Non-ASEAN	1	3	4	5	9
<b>Grand Total</b>	<b>26,792</b>	<b>29,340</b>	<b>31,749</b>	<b>34,507</b>	<b>36,075</b>

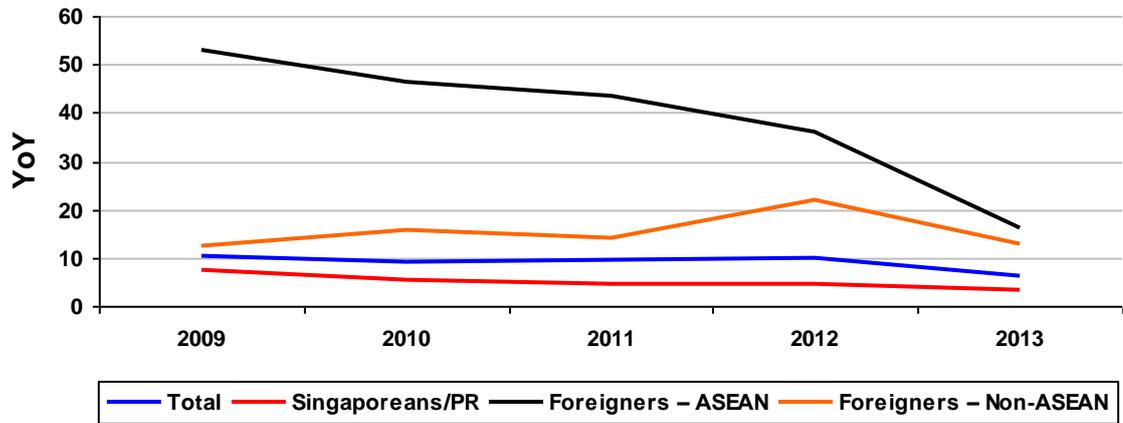
Source: SNB annual reports.

\* Please note that the number of Registered Midwives refers to those who are not concurrently registered in another Register/Roll of Nurses.

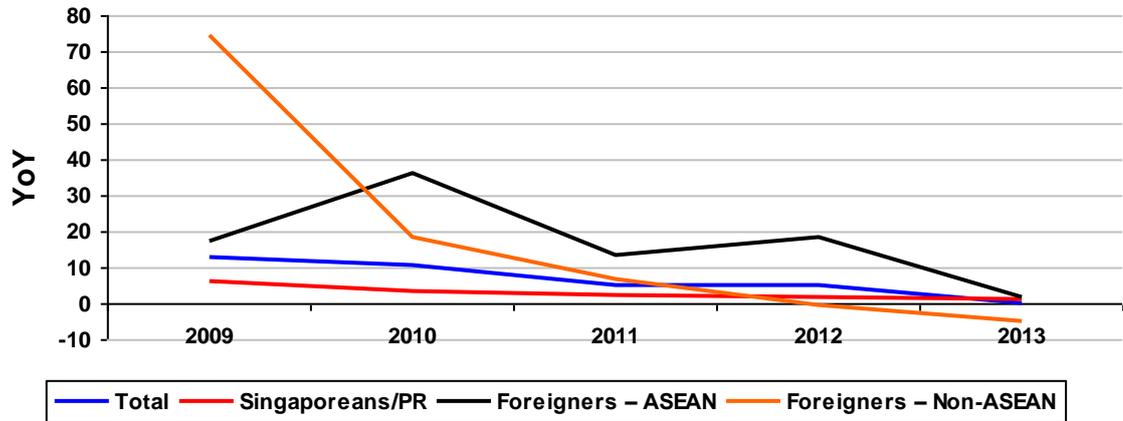
The growth pace of the number of nursing professionals has been slowing, and the slowdown has been across the board. This is likely due to the increasing difficulty of hiring nursing professionals and a narrowing pool of qualified and willing candidates.

Please refer to the following charts:

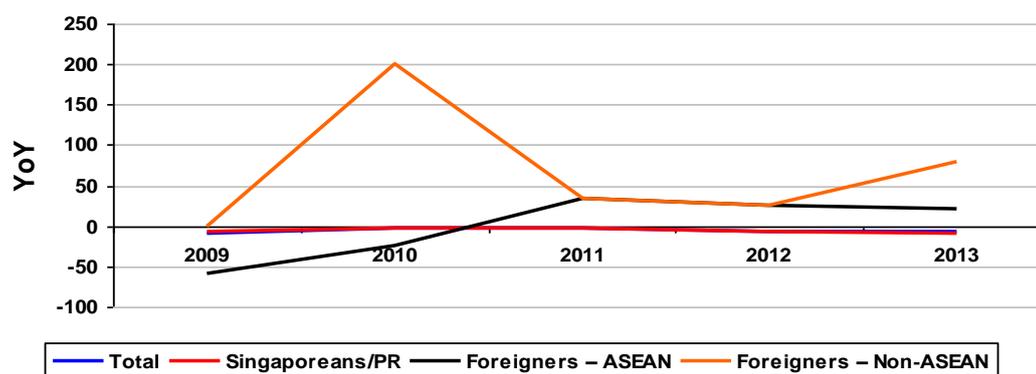
**Growth Rates of Registered Nurses (2009-2013)**



**Growth Rates of Enrolled Nurses (2009-2013)**



Growth Rates of Registered Midwives (2009-2013)



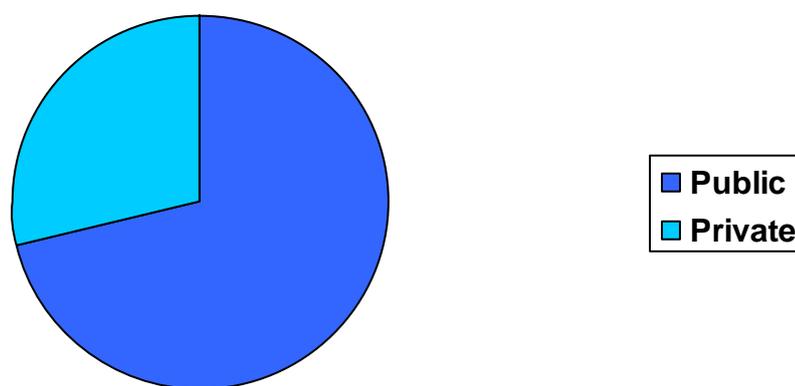
However, the proportion of foreign nurses (both registered and enrolled) from AMSs has been increasing. They are mainly from Malaysia, the Philippines, and the Republic of the Union of Myanmar. The following table shows the distribution of nurses' nationalities:

Type of Nursing Professional	2009	2010	2011	2012	2013
<b>Registered Nurses - Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
Singaporeans/PR	89.7	87.3	84.2	80.6	76.7
Foreigners – ASEAN	6.0	8.3	11.1	14.5	18.0
Foreigners – Non-ASEAN	4.3	4.4	4.7	4.9	5.4
<b>Enrolled Nurses - Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
Singaporeans/PR	76.4	72.0	67.2	65.4	63.1
Foreigners – ASEAN	16.8	17.5	21.6	23.2	26.1
Foreigners – Non-ASEAN	6.8	10.5	11.2	11.4	10.8
<b>Registered Midwives* - Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
Singaporeans/PR	96.6	98.3	97.9	97.2	96.2
Foreigners – ASEAN	3.1	1.4	1.0	1.4	1.9
Foreigners – Non-ASEAN	0.3	0.3	1.0	1.4	1.9
<b>Grand Total</b>	<b>26,792</b>	<b>29,340</b>	<b>31,749</b>	<b>34,507</b>	<b>36,075</b>

Source: SNB annual reports, SIIA calculations.

In terms of demand, the public sector employs over two-thirds of registered and enrolled nurses. In 2013, of the 85 percent or 23,454 registered nurses who were working full-time or part-time, 71 percent were employed in the public sector and 29 percent in the private sector. Of the 84 percent or 6,938 enrolled nurses who were working full-time or part-time, 70 percent worked in the public sector.

### Share of Registered and Enrolled Nurses



#### 4.3.5. Authorisation to work as Foreign Nurses/Midwives

Foreign-trained Nurses/Midwives who wish to work in Singapore must be registered or enrolled with the SNB. They must have an offer of employment from a healthcare institution in Singapore before the SNB can consider their application for registration/enrolment.

The hospital or healthcare institution offering them employment will apply for registration or enrolment on their behalf. To be eligible for application, they must be registered as a nurse and/or midwife in the country where they were trained, as well as a current licence to practice as a nurse or midwife. They must also show evidence that they have completed a nursing programme, which is equivalent (as assessed by the SNB) to an accredited pre-registration or pre-enrolment nursing programme in Singapore.

Furthermore, foreign-trained nurses and midwives (on a case by case basis) may be required to sit the SNB Registered Nurse (RN), Enrolled Nurse (EN), or Registered Midwife (RMW) Licensure examinations. The examinations are designed

to evaluate their competence to practise nursing/midwifery in Singapore. When applications for registration/enrolment are received, the SNB assesses whether the applicants are required to take the examinations.

#### *4.3.6. Conclusion and Recommendations*

There is no nationality pre-requisite for registering as an Architect, a Professional Engineer, or a Nurse and/or Midwife in Singapore. Due to its small population size, Singapore only requires interested persons to be suitably qualified and experienced.

For Architects, requirements for registration are an approved academic qualification in architecture and appropriate practical experience in architectural work. Professional Engineers are required to hold an approved degree or qualifications listed in the Professional Engineers (Approved Qualifications) Notification and have no less than four years of relevant practical experience.

Although substantial progress has been made in some of the MRAs in professional services, we still see room for accelerating the movement towards regional integration and facilitation of professional services. These are our recommendations:

1. Prioritize one or two professions as a designated MRA ‘model’ and its progress and successful implementation will serve as a template for other designated professions as well as for professions still to be designated.
2. Professional qualifications and requirements should be written in English or should have an English translation to facilitate comparison, standardisation, and accreditation.
3. Conduct more in-depth research studies on the impacts and outcomes of the free flow of professional services as a result of AEC in the region, to share knowledge and information, and to address any objections or resistance to such free flow of skilled labour.
4. Strengthen coordination between government agencies, professional institutions, and academic/research institutions.
5. Promote greater public awareness about the MRA and its overall progress through public outreach activities.

## 5. Non-Tariff Measures (NTMs) in Singapore

Singapore has on the whole been a free port and an open economy – more than 99 per cent of all imports enter the island state duty-free.<sup>65</sup> Even on non-tariff measures (NTMs), Singapore is highly ranked as a liberalised trading country. Using a gravity model computed by Misa Okabe,<sup>66</sup> it was found that there were fewer NTMs that are barriers to import in Singapore and Malaysia than in other ASEAN countries.

This report summarises the findings and process of data collection by the Singapore Institute of International Affairs (SIIA) research team on ERIA's study on Non-Tariff Measures (NTMs) :

### 5.1. Overview

Singapore maintains virtually no tariffs on imported goods, with the notable exception of alcohol and tobacco products, for health reasons.<sup>67</sup> Singapore has import prohibitions on the stated basis of health, safety, and environmental reasons, or to comply with Singapore's international obligations. These import prohibitions include:

- Chewing gum unless for therapeutic purpose;
- Used motor vehicles more than three years old.<sup>68</sup>

Singapore also requires licensing for importers – through automatic or non-automatic procedures – most notably for rice importers for food-security reasons. Rice importers are required to stockpile rice equivalent to two months of imports.<sup>69</sup>

No divergences were observed between the agreed regulations on NTMs and actual practice in Singapore, nor is there any bottleneck in implementing NTMs.

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<sup>65</sup> <http://www.export.gov/singapore/doingbusinessinsingapore/traderegulationscustomsandstandards/index.asp>

<sup>66</sup> [http://portal.hss.ntu.edu.sg/ea2012/submitpapers%5Cpapers%5C255%5CMisaOkabe\\_paper.docx](http://portal.hss.ntu.edu.sg/ea2012/submitpapers%5Cpapers%5C255%5CMisaOkabe_paper.docx)

<sup>67</sup> E.g. World Trade Organization. 2008. 'Trade Policy Review', WT/TPR/S/202. Available online at: [http://www.wto.org/english/tratop\\_e/tpr\\_e/s202-03\\_e.doc](http://www.wto.org/english/tratop_e/tpr_e/s202-03_e.doc) (Accessed 12 June 2014).

<sup>68</sup> World Trade Organization. 2012. 'Trade Policy Review – Singapore: Summary', WT/TPR/S/267, note 13. Available online at: [http://www.wto.org/english/tratop\\_e/tpr\\_e/tp367\\_e.htm](http://www.wto.org/english/tratop_e/tpr_e/tp367_e.htm) (Accessed 12 June 2014).

<sup>69</sup> Ibid., note 15.

## 5.2. The research process

During the survey period, the SIIA approached the major business federations, trade associations, as well as individual firms in Singapore for their participation in the ERIA study. The idea behind approaching the business federations was to:

1. Harness their network of local firms; and
2. Use their influence on and reputation with local firms to help convince potential respondents to participate in the ERIA survey.

### 5.2.1. Responses and findings

#### Survey

Given the lack of a single survey response through the chambers of commerce, and given the tight deadlines given for the study, members of the SIIA research team decided to try to obtain survey responses through their personal contacts. This meant that the research team was not ideally situated to source for at least one survey response for each of the five NTM types identified – rather, it depended on the kinds of contacts with firms that were available to the researchers, and whom were willing to participate in the study. To compensate for the lack of sufficient coverage of the range of NTM types, focus group discussions (FGDs) were held and the perspective of the Economic Research Department Singapore Chinese Chamber of Commerce and Industry (SCCCI) was sought *on behalf of industry*.

### 5.2.2. Focus group discussions (FGDs)

The SIIA conducted two FGDs with staff from the Economic Research Department of the Singapore Chinese Chamber of Commerce and Industry (SCCCI) and with input from Ya Kun International, BodyPerfect, and SkinPerfect, on 29 May and 13 June 2014.

The SCCCI staff started by giving a background to the two major issues facing Singapore firms today:

- Land costs (e.g., factory space and office rental).
- Labour costs (in light of the rising costs of labour in Singapore with the tightening of the inflow of foreign labour).

The issue of NTMs was presented as a relatively less problematic concern for Singapore firms and SMEs, compared with the two issues mentioned above. This is

also because the economic government agencies in Singapore are proactive in helping exporting SMEs navigate NTM issues (mostly centred on technical barriers to trade [TBTs]), through direct help or by connecting them to local networks in partner countries.

### **5.3. Challenges in the research process**

The research team faced a considerable amount of resistance towards obtaining more survey and FGD responses, for the following reasons:

1. Survey fatigue amongst firms.
2. In choosing which surveys to respond to, Singapore firms give preference to government-led studies such as those conducted by the Ministry of Trade and Industry or the Economic Development Board (EDB) of Singapore.<sup>70</sup> They tend not to respond to non-government-led surveys, such as academic surveys – unless a considerable incentive is offered.
3. Feedback, which the researchers received from potential respondent firms, indicated that the survey questionnaires typically were complex, difficult to comprehend, and confusing in terms of layout and design. Occasional errors in the forms compounded the problem.<sup>71</sup> Despite the researchers' persistent offer to help the firms by going through the survey forms together,, firms were disinclined to cooperate further.
4. Business federations and individual firms were unwilling or unable to spend three hours to participate in the FGDs (as stated in the FGD 'Suggested format and guide questions').

### **5.4. Concluding remarks**

Based on our discussions with the industry federations, manufacturers, and individual firms, there is a prevalent view that non-tariff measures (NTMs) are centred on technical barriers to trade (TBTs), rather than sanitary and phytosanitary

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<sup>70</sup> Interview with SCCC researcher, 29 May 2014.

<sup>71</sup> E.g., on page 7 of the survey questionnaire, under 2E – the heading should have read 'Please elaborate on your answer in 2D' rather than '... 4D'. On page 9, under 4B, it was not clear to respondents what 'code' referred to.

measures (SPS), or non-automatic licensing, quotas, or prohibitions. This view is corroborated by the World Trade Organization's findings on Singapore.<sup>72</sup>

Secondly, private sector companies are strongly reluctant and averse to revealing their views on NTBs and NTMs in surveys. This is due in part to survey fatigue amongst companies in Singapore and to a preference on their part for responding to government-led rather than academic surveys, due to the perception that their voices would only be heard, and their interests taken into account toward effecting change, if it is the government that is asking them.

Although we only managed to obtain three completed survey forms, through Focus Group Discussions and interviews we have gathered important information about the NTM issues faced by Singapore firms.

Thirdly, region-wide networks of chambers of commerce and business federations have helped to enable Singapore firms to navigate around NTMs in the region when exporting. Nonetheless, firms and other stakeholders very much welcome the idea of a robust ASEAN-wide NTM complaints channel – for them this would function like a third party arbitration forum, without legal costs involved.

Fourthly, on a larger scale, business stakeholders believe that measures and initiatives taken by authorities to help them reduce the costs of doing business and of exporting will be useful, even if they are not addressing NTMs.

## **6. ASEAN Comprehensive Investment Agreement (ACIA) and the Singapore Exclusion List**

### **6.1. Overview**

The ASEAN Comprehensive Investment Agreement (ACIA), which entered into force on 29 March 2012, aimed to create a more liberalised investment environment for the ASEAN region. The ACIA replaces two precursors – the ASEAN Investment Area (AIA) and ASEAN Investment Guarantee (AIG) agreements. It seeks to achieve

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<sup>72</sup> World Trade Organization. 2012. 'Trade Policy Review – Singapore: Summary', WT/TPR/S/267, note 13. Available online at: [http://www.wto.org/english/tratop\\_e/tptr\\_e/tp367\\_e.htm](http://www.wto.org/english/tratop_e/tptr_e/tp367_e.htm) (Accessed 12 June 2014), note 15.

one of the four primary objectives of the ASEAN Economic Community (AEC) blueprint – to become a single market and production base with five core elements: the free flow of goods, services, investment, labour, and capital.

This report aims to provide an overview of Singapore’s application of the ACIA – in particular, the perspectives of the Singapore government – and the accompanying Schedule to the ACIA (‘Reservation List’) which AMSs were entitled to submit on points of reservations they wish to make to the provisions in the ACIA.

## **6.2. The Singapore Government’s perspective on ACIA and Singapore’s Reservation List**

The government of Singapore has generally been positive about the ACIA in their public statements. Lim Hng Kiang, the Minister for Trade and Industry of Singapore, said in 2013 that the ACIA ‘has established stronger, pro-business rules, with enhanced investment protection for both ASEAN-owned investments and also foreign-owned investments based in ASEAN’.<sup>73</sup> In the expenditure overview of Singapore Budget 2011, the Singapore government stated that ‘we will work towards the entry into force of the ASEAN Comprehensive Investment Agreement (ACIA) to build greater confidence and certainty for foreign investors to make investments in ASEAN’.<sup>74</sup>

In drafting the Reservation List to the ACIA for Singapore, the Singapore government looked to its existing national rules and regulations as a basis. As such, Singapore’s exclusion list document extensively cited the sources of legislation for each investment reservation it had listed. Singapore’s Reservation List to ACIA is one of the briefest amongst ASEAN member states, with the Singapore Exclusion List being characterised as ‘refined and limited’. The government is considering reducing the list of investment reservations to further enhance trade liberalisation.

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<sup>73</sup> <http://www.bis.org/review/r130521f.pdf>

<sup>74</sup> [http://www.mof.gov.sg/budget\\_2011/expenditure\\_overview/mti.html](http://www.mof.gov.sg/budget_2011/expenditure_overview/mti.html)

### **6.3. The Singapore Reservation List**

Singapore submitted a schedule of reservations to the ACIA, on the following 13 points:

1. Minor restrictions would be kept in place on financial institutions extending Singapore dollar credit facilities to non-resident entities, to prevent currency speculation.
2. Limitations would be kept in place on equity ownership by non-Singapore Government investors in the government-linked companies of ST Engineering, Singapore Power, Port Authority of Singapore (PSA) Corporation, and Singapore Airlines, due to the strategic interests of the government.
3. Minimum requirements would be kept in place for firms to hire Singapore citizens, Permanent Residents, and Employment Pass holders in locally incorporated companies, due to labour interests.
4. National Treatment, as described in the ACIA document, would not apply to land zoning policies; or
5. State Land, due to the limited supply of land in Singapore.
6. National Treatment would not apply to sectors and assets relating to governmental authority, due to strategic interests of the government.
7. Restrictions on the manufacture of arms and explosives will remain, on the grounds of safety and security.
8. National Treatment would not apply to the firm of ST Engineering, due to the government's strategic interests.
9. National Treatment would not apply to measures relating to beer, tobacco, chewing gum, firecrackers, and matches, on the grounds of health, environmental, and security concerns.
10. National Treatment would not apply to measures affecting the manufacture of optical discs, on the grounds of intellectual property protection.
11. National Treatment would not apply to pig farming, licences for which are no longer issued by the government since the industry was phased out in the 1980s over environmental concerns.

12. National Treatment would not apply to quarrying, licences for which are no longer issued by the government since the industry was phased out in the 1980s after sand and granite quarries were mined to below sea level.
13. National Treatment and the Senior Management and Board of Directors requirements of the ACIA would not apply to the publishing and printing of newspapers, in line with governmental control of the media in Singapore under the Newspaper and Printing Presses Act of 1974.

#### **6.4. Note on ERIA computation**

The ERIA computation results generally conform to the Singapore Reservation List. However, the problem is that the use of isic 2- and 3-digit groups is often not sufficient to pinpoint the specific product/industry group in question that is being referred to in the Reservation List. For example, the manufacture for sale of chewing gum in Singapore is regulated, but not the other food products under the isic 3-digit group of 107 'Other food products' – the result is that this regulation of chewing gum cannot be reflected in the computation analysis.

The government of Singapore has been generally positive about the ACIA and has not reported experiencing any problems in its implementation. Its Reservation List is one of the briefest amongst those submitted by AMSs, re-affirming the status of Singapore's economy as the most liberalised in ASEAN.

#### **6.5. Conclusion**

The Singapore government has been very positive about the ASEAN Comprehensive Agreement (ACIA) as the Agreement would provide incentives and a policy framework to establish stronger, pro-business rules with enhanced investment protection for both ASEAN-owned investments and foreign-owned investments based in ASEAN. Like other AMSs, Singapore has submitted a schedule of reservations to the ACIA on 13 points as indicated in the previous section. However, its reservation list is one of the briefest amongst those submitted by AMSs, indicating and re-affirming Singapore's long-established status as a relatively liberalised economy.

What can we learn from Singapore's experience in liberalising its investment regime? One basic economic fact is that a liberalised investment regime and structure

are aligned with Singapore's basic national interest right from its start as a sovereign and independent state in 1965. Due to its small domestic market and devoid of natural resources, Singapore's economic survival and development is critically dependent on attracting foreign investment, technology, and talent. The role of foreign investment in economic development through capital inflows, technology transfer, and competitiveness, has been well established in the economic literature and is backed by empirical evidence. In fact, the dynamism and rapid economic development of ASEAN economies have been attributed to a large extent to foreign direct investment (FDI), technology transfer, and export-oriented growth strategies. The relevant and important question is how to operationalise ACIA to AMSs, under the framework of the ASEAN Economic Community?

Many AMSs are worried that a full implementation of ACIA would be detrimental to their SMEs against the inflow of more competitive foreign firms. Based on the Singapore experience, liberal investment regimes must be complimented with effective and sustainable SME policies or other targeted sectoral policies. Initially, local SMEs were oriented toward supporting larger and more competitive foreign multinationals as sub-contractors. Over the years, due to successful and effective SMEs policies in nurturing and supporting vibrant and competitive SMEs and in fine-tuning liberal investment regimes, these local firms have become more competitive in the domestic economy and in venturing abroad into foreign markets. In implementing ACIA, AMSs with large domestic markets must also have robust and effective SME policies to nurture the development of local SMEs in supporting foreign firms and in exploiting non-tradeable sectors, in which local SMEs normally have a comparative advantage.

Another important element which is critical to the implementation of ACIA for large AMSs is the gradual and slow implementation of a competition regime and effective regulatory management. In the Singapore context, a liberal investment regime is strongly supplemented and reinforced with continuing improvement in the competition policy and regulatory regime with a view to strengthening competition and the development of competitive local SMEs. A liberal investment regime without concurrent policy measures to improve competitiveness and nurturing local SMEs would have many negative side-effects on local enterprises and SMEs. To illustrate the importance of this policy linkage, two Singapore case studies can be identified:

one is the telecom sector experience and another is the progressive liberalisation of the financial and banking sector.

Until 1992, Singapore had only one telephone service provider. Mobile phones were rare and broadband services were not offered. Now there are about 500 telecom service providers. About 99 percent of the population has mobile phones and 53 percent of households has broadband access. International call prices have fallen by up to 80 percent. This is a snapshot of the benefits that telecom liberalisation has brought to the telecom industry in Singapore. The decision to introduce competition in the telecom sector was influenced by two factors. Firstly, rapid technological advancement reduced infrastructural costs, hence the natural monopoly argument is no longer valid. Secondly, a monopoly provider would not have the right incentives to satisfy the increasingly diverse and sophisticated demand for telecom services to support Singapore's development as a global business hub. As the telecom sector was the first monopolistic sector to liberalise in Singapore, there were no local templates for competition management that could be adopted. Through gradual improvements in competition law and the regulatory regime pertaining to the telecom sector, Singapore has been able to liberalise its telecom sector with maximum benefits to consumers and minimal harm to the dominant local telecom firm – SingTel.

Another prime example is the liberalisation of Singapore's financial and banking sector. In 1997, the Monetary Authority of Singapore (MAS) launched a comprehensive review of Singapore's financial sector. The MAS changed its regulatory approach from one-size-fits-all prescriptive regulation towards a more risk-focused supervisory approach, allowing freer competition and greater risk-taking by financial institutions and actively promoting financial activities in which Singapore has comparative advantages. As a result of such gradual policy fine-tuning of its regulatory regime and competition policy, Singapore's financial sector is now robust with an excellent legal, supervisory, and institutional framework. There are now 600 local and foreign financial institutions in Singapore offering a comprehensive range of world-class financial services and contributing 11 percent of Singapore's GDP.

Different sizes and stages of economic development naturally require policy fine-tuning and different policy specifications in applying the ACIA liberal investment regime. Nonetheless, the basic workable elements of Singapore's policy experience in

applying investment liberalisation remain valid whether it is in promoting and nurturing SMEs, the telecom sector, the financial sector, or any other sectors.

Singapore's government strongly holds the view that liberalisation of investment and services are critical to reaping the full benefits of the implementation of the ASEAN Economic Community in 2015.

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