4. ASEAN Vision 2040 and Key Strategies on Standards and Conformance

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ASEAN Vision 2040 and Key Strategies on Standards and Conformance

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As the Association of Southeast Asian Nations (ASEAN) continues its journey towards realising its vision of an ASEAN Community, standards and conformance remain a key component in the production of tangible outcomes to characterise the region as a deeply integrated and highly cohesive economy capable of sustaining high economic growth. ASEAN standards and conformance efforts, which fall under trade facilitation efforts to support the ASEAN Economic Community (AEC) pillar, are aimed at establishing a sound regional quality infrastructure framework to address technical barriers to trade (TBTs) that arise from overly stringent or trade-restrictive measures at the national or regional level. To achieve this, ASEAN needs to ensure that the soft and hard infrastructure fundamental for a regional quality infrastructure is supported by a corresponding national quality infrastructure that is put in place to achieve the desired goals of a common system of standards and conformance, and to meet the trade facilitation objectives for a single market and production base. The business community is a key contributor to the success of efforts in the area of standards and conformance, and continues to advocate for good regulatory practice

based on sound scientific rationale and justification to ensure product safety and quality. Thus, it is essential that ASEAN leaves no one behind in these efforts, but ensures the balanced representation of all key stakeholders. The development gap between Cambodia, the Lao People's Democratic Republic (PDR), Myanmar, and Viet Nam (CLMV) and the rest of ASEAN is also something that the region needs to consider seriously to attain its desired goals collectively and along common timelines. The use of an inclusive approach with key players to close these gaps in a complementary manner is an important consideration for ASEAN over the next few years as it works to achieve its desired regional goals towards 2040.

ASEAN standards and conformance efforts, which fall under the trade facilitation agenda to realise the single market and production base goal that characterises the AEC, began in 1992 when ASEAN was focusing on realising the ASEAN Free Trade Area (AFTA) through the general approach of harmonising standards, technical regulations, and conformity assessment procedures with international benchmarks. As ASEAN progresses from Vision 2020 to Vision 2040, these endeavours need to be farsighted to ensure that the policies and principles continue to support regional goals and do not create an inward-looking trade bloc. Although this approach was agreed upon to realise internal goals, the approach also supported open regionalism, including policies and principles for the harmonisation of standards, technical regulations, and conformity assessment procedures in alignment with the World Trade Organization (WTO) TBT agreement. Therefore, the initiatives being put in place are geared not only towards realising the single market and production base, but also the goal of plugging into the global landscape. The crucial step and indicator of success will be the effective implementation of these policies and principles while ensuring that the required technical infrastructure is put in place via an approach that is inclusive of all stakeholders.

The following sections will analyse current ASEAN efforts to achieve standards and conformance, and will identify the gaps that need to be addressed to ensure that the regional policies, strategies, and approaches remain relevant and will yield the desired outcome as ASEAN progresses towards 2040.

Regional Quality Infrastructure – Setting the Right Foundations

The ASEAN Consultative Committee for Standards and Quality (ACCSQ) is the focal point for activities related to standards and conformance in the region. It is responsible for implementing the AEC Blueprint measures for standards and conformance, laying down the foundations (such as policies and strategies) for addressing TBTs, and subsequently implementing these policies and strategies to help realise the single market and production base. In laying these building blocks, it is important to ensure that the foundation for regional infrastructure is based on the fundamentals of a quality infrastructure, mapped to the national quality infrastructure of the ASEAN Member States (AMS). This is necessary to ensure that regional implementation will not contradict national goals. A review of these foundational efforts indicates that all of the components of the quality infrastructure have been put in place to support the development of policies and strategies to address ASEAN TBTs in ASEAN.

The ASEAN initiated standards and conformance activities as early as 1992, although at that point of time these were aimed at supporting the realisation of the AFTA. The AMS initiated efforts to address TBTs by putting in place relevant structures through working groups. These groups were established to address regional policies for the development and implementation of standards, conformity assessments (including accreditation, inspection, testing, certification, and calibration), and legal metrology (which plays a role in calibration and standards for weights and measures). These functions are fundamental to establishing a quality infrastructure and necessary to ensure the effective implementation of technical regulations and standards and conformance, the tools used to demonstrate compliance with mandatory product safety technical regulations.

A robust quality infrastructure mechanism is fundamental for addressing TBTs. Quality infrastructure is the institutional framework that puts in place a complementary system for the management of standards and conformity assessment procedures to ensure product safety and quality and consumer protection. Standards and conformity assessment

procedures are tools used to demonstrate compliance with product safety and quality requirements, or technical regulations to ensure that the products comply with safe use requirements. Their alignment with international benchmarks ensures that these measures are not trade-restrictive, hence not TBTs. Legal metrology is another important part of the quality infrastructure as it contributes to trade through its role in ensuring the consistency of measurements and compliance in conformity assessment. A robust regional quality infrastructure framework incorporates the roles of the National Standards Body, National Accreditation Body, and National Metrology Institute (in alignment with international benchmarks) to contribute to economic growth by boosting competitiveness and creating a level playing field for local business operators to plug into the global landscape.

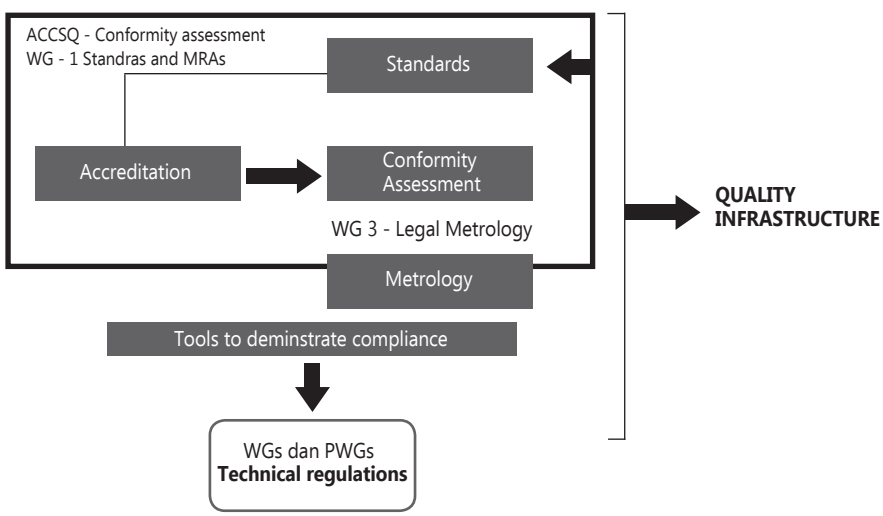
Figure 1 shows the current ASEAN bodies under the ACCSQ that have the components of a quality infrastructure. The mapping shows that ASEAN has established a good foundation to address TBTs at the regional level. Most of the AMS are already participating in relevant international organisations that set the stage for the development of a national quality infrastructure. These organisations include the International Organization for Standardization (ISO), International Electrotechnical Commission (IEC), Asia-Pacific Laboratory Accreditation Cooperation, International Laboratory Accreditation Cooperation, International Bureau for Weights and Measures, and International Legal Metrology Organisation. AMS should consider participating in the activities of these organisations as they contribute to the development of national quality infrastructure.

A strong and capable national quality infrastructure is key to achieve an effective regional quality infrastructure. However, a robust quality infrastructure framework cannot address all TBTs in the region without the support of soft and hard infrastructure. The following section reviews the soft and hard infrastructure needed to address TBTs in the region.

Regional Rules and Policies for Addressing Technical Barriers to Trade in the Association of Southeast Asian Nations

After laying the right foundations for a quality infrastructure, the next step is to ensure that the appropriate soft infrastructure, that is, the legal basis for addressing TBTs, is in place. The legal basis for addressing TBTs in ASEAN is the ASEAN Trade in Goods Agreement (ATIGA), which stipulates the provisions for standards, technical regulations, and conformity assessment procedures. These were also specified in the Common Enhanced Preferential Tariff Scheme, which targeted the realisation of the AFTA. When the scheme was updated, the provisions were also enhanced to align with international benchmarks, notably those of the WTO. It is worth noting that the provisions in the ATIGA mirror those in the WTO TBT Agreement. These principles are aligned with those of the WTO for non-restrictive approaches, unless they are intended to meet legitimate objectives, such as national security requirements, the prevention of deceptive practices, and the protection of human health or safety, animal or plant life or health, or the environment.

Figure 1: Mapping of the Regional Set-Up for Quality Infrastructure



ACCSQ = ASEAN Consultative Committee for Standards and Quality, MRA = mutual recognition agreement, PWG =, WG = working group.

Source: Authors.

The AMS are all signatories to the WTO and abide by the WTO TBT principles for non-discriminatory trade rules, in theory. Although it ensures that the WTO non-discriminatory principle is not violated, this approach should be reviewed to determine whether it adds any additional value to the realisation of deeper integration amongst the 10 AMS. The ideal situation would be to have rules and policies that apply an approach beyond the existing WTO requirements, to yield the desired outcome for deeper integration amongst a specific group of members, such as ASEAN. Moreover, the WTO recognises and supports the development of regional trade agreements amongst its members.

The ACCSQ began its work by harmonising national standards for 20 priority products (identified under the AFTA intra-ASEAN trade objectives) and, subsequently, the priority integration sectors (PISs) (identified to support the realisation of the ASEAN Community) with the corresponding international benchmarks for these sectors. These approaches were outlined in the ASEAN Policy Guidelines on Standards and Conformance (APGSC) adopted in 2005. Although not legally binding, the APGSC provided guiding principles for the development and implementation of standards, technical regulations, and conformity assessment procedures at the national level in ASEAN to fast-track the integration of the PISs and support the realisation of a single market and production base by 2015. These principles, which are aligned with the provisions of the WTO TBT Agreement, can be summarised in terms of the following goals:

i. the alignment of national standards with corresponding international standards identified for regional adoption;
ii. the adoption of technical regulations in adherence to the principles of the WTO TBT Agreement;
iii. adherence to the provisions of the ASEAN Framework Agreement for mutual recognition arrangements (MRAs) to ensure the acceptance of conformity assessment results, participation in relevant international activities, and transparency; and
iv. policies for technical regulations based on the principles for good regulatory practices prescribed by the ASEAN Good Regulatory Practice (AGRP) guidelines, which are based on the principles advocated by the Asia Pacific Economic Cooperation (APEC) to its members to help them meet their obligations under the WTO.

The current provisions were adopted from the inception stage of TBT efforts in the region. It is important to review these legal provisions to ensure that they remain relevant and contribute to the goals of deeper integration to realise the ASEAN single market and production base.

Sectoral Approach versus Severity of Technical Barriers to Trade

The initial phase of the ASEAN endeavour to address TBTs to meet the trade facilitation objectives under the regional integration goals comprised the 20 priority products and, subsequently, the PISs. The effort to harmonise the 20 priority products aimed to achieve intra-ASEAN trade facilitation under the AFTA goals. As such, the selection of products or sectors in which TBTs needed to be addressed was based on regulated products traded within the region that were creating internal barriers to trade, thus impeding intra-ASEAN trade. As the regional vision progressed towards deeper economic integration to achieve the AEC, the ACCSQ embarked on the second phase of its standards and conformance efforts for the PISs, based on the identification of TBTs through the ASEAN Framework Agreement on PIS. These two phases indicate that ASEAN has taken a reactive approach to address TBTs.

The ASEAN Non-Tariff Measures (NTM) Database is in place in accordance with the provisions in the ATIGA. Under this initiative, the AMS are expected to 'establish a database on NTMs applied in its territory' and 'notify amendments to existing measures or the adoption of new measures' (ATIGA, 2009). The ATIGA also requires that information on NTMs be included in the ASEAN Trade Repository. The ACCSQ should review the NTMs regularly, identify the severity of TBTs for both intra- and extra-ASEAN trade, and prioritise critical sectors for addressing TBTs in the region. This would make ASEAN more attractive to foreign investors and include local operators in the supply chain of larger corporations, thus contributing to technology transfer and job creation. Next, it is necessary is to identify the role and inclusiveness of the various actors addressing TBTs in ASEAN.

‘Leave No One Behind’ – Supply Chain Management

To address TBTs, the AMS must adopt and implement the relevant policies, strategies, and measures, which must also be defined. This will require much study and research in the form of a regulatory impact analysis, which is a ‘systemic approach to critically assessing the positive and negative effects of proposed and existing regulations and non-regulatory alternatives and is an important element of an evidence-based approach to policy making’ (Organisation for Economic Co-operation and Development). In this regard, the ACCSQ could add more value to the regional integration process by adopting a regional approach to regulatory impact analysis to ensure that the negotiated regional commitments support the attainment of the regional goals of a single market and production base. The ACCSQ’s current approach consists of reaching a consensus on regional technical regulations, while taking into consideration existing national technical regulations for each sector. This has often resulted in regional commitments with country-specific requirements, which do not support the attainment of a single market and production base.

The success of these regional measures depends on their effective implementation by business operators. Thus, it is critical for business operators to be involved in defining these technical regulations at some stage to ensure that the measures are practical and conducive for businesses while ensuring product safety and quality. Technical regulations should be built upon sound scientific data and justifications. Most business operators have a significant amount of scientific data from research carried out for product development. Much of the scientific research done on raw materials, ingredients, and processes is widely available to users, whether regulatory agencies, academics, research bodies, or business operators. An inclusive approach would ensure that the technical regulations put in place do not compromise product safety and quality and create a favourable environment for business operators by increasing product innovation and competitiveness, resulting in healthy business competition and wider product choices for the consumer at competitive prices.

Business models have changed with the rise of globalisation, which has led to the development of supply chain networks, an increase in business partnerships, and sourcing from lower cost production bases. This in turn has enhanced organisational efficiency, productivity, and profitability. Small and medium-sized enterprises (SMEs) represent 89%–99% of the firms in ASEAN, accounting for 52%–97% of employment, 23%–58% of gross domestic product, and 10%–30% of total exports (Economic Research Institute for ASEAN and East Asia, 2014). The AMS have often used this as a reason to apply rules that protect these businesses, giving rise to a protectionist approach.

Although multinational corporations (MNCs) have been perceived as a threat to SMEs, MNCs actually contribute significantly to the shaping of regulatory frameworks based on international benchmarks. The MNCs' business model is such that progressive SMEs form part of their supply chain network, enhancing the SMEs' overall capability through technology transfer, as well as their capability to meet international benchmarks. Thus, ASEAN stands to benefit if large corporations are included, in a structured manner, in the regional efforts outlined above.

Strengthening the National Quality Infrastructure of each Association of Southeast Asian Nations Member State

A robust regional quality infrastructure framework is a key component of ASEAN's standards and conformance efforts to facilitate deeper trade linkages amongst the AMS. This is because a major group of NTMs in the region consists of TBTs, which the regional quality infrastructure is meant to address. The number of NTMs in the region has been rising, making it increasingly important to strengthen standards and conformance efforts to address these barriers to regional trade.

Investing in a robust quality infrastructure is even more compelling and strategic at the national level than at the regional level. Such infrastructure is necessary to balance increased societal concerns over product quality and safety, health, and the environment with the need to minimise the burden on business that may ensue from TBTs. It is also

a significant foundation of the competitiveness of any country. This is especially the case in ASEAN as the region becomes preponderantly middle class and the technological landscape becomes even more dynamic in the decades leading up to 2040 and beyond.

Investing in a robust quality infrastructure is an important competitiveness strategy because access to export markets and participation in global value chains increasingly depend on local firms being able to meet international standards or private standards set by the leaders or end buyers in the global value chains. It is also cheaper and better for local firms to have internationally accepted certifications awarded locally rather than having their firms or products certified by a foreign-based body.

A study of standards and conformance infrastructure in selected APEC countries yielded a number of interesting insights from the experience of these countries that are highly relevant to the issue of investing in and building quality infrastructure in ASEAN towards 2040 (Shepherd, et al., 2018). As most AMS are APEC members, there is already a high degree of adoption of the APEC policies for harmonising standards and conformity assessment procedures. Adapting the knowledge and experiences in some countries' success stories to the regional level would be greatly conducive to attaining the regional goals.

The following insights are worth highlighting:

(i) The adoption of or alignment to international standards is important to facilitate trade with the rest of the world and overcome artificial barriers. This would make it easier for domestic firms to link up with other firms in the world, join global value chains, encourage higher productivity and product quality, and be competitive. Adopting international standards is a 'quality signal' that increases consumer confidence in the export market for brands that are not yet internationally known.

(a) Both Australia and Singapore have a policy of adopting international standards wherever possible (Singapore's small size and extreme reliance on trade necessitates this). In the case of Australia, the implication of this policy is that the onus is on the stakeholder or proponent of a separate Australian standard to prove the necessity of that standard if there is an available international standard. For Singapore, this means that the country only applies a few national standards, and it effectively uses international standards directly, as its main approach. Australia and Singapore are both heavily involved in the development of international standards at the global level.

(b) Viet Nam has a policy of increasingly aligning old and new national standards to international standards. While only about 47% of Viet Nam's national standards are currently aligned with international standards, a 2011 decision by the Prime Minister aims to align 90% of all important new national standards with international standards. The policy assumes that alignment with international standards is a means of improving the productivity and product quality of domestic firms, even if the standards are voluntary in nature. To further the alignment of standards as a strategy to enhance productivity and product quality, the decision also targets a large number of domestic enterprises that will be guided and supported in applying new national standards that are largely drawn from international standards.

(ii) Higher standards as a product differentiation strategy

(a) In China, voluntary national standards are largely guidelines for industry and not strictly enforced. Private standards set by companies are more stringent than national standards. Similarly, in Japan, innovative domestic firms deem national standards to be the minimum acceptable standards, and they actively develop higher standards as a strategy for product differentiation. The Government of Japan has a mechanism to help Japanese firms, especially SMEs, develop such product-differentiating higher standards. Although these approaches may help individual countries meet their national trade policies, such an approach can lead to discriminatory trade practices and, in the case of

ASEAN, may impede the attainment of a single market and production base.

(iii) Private sector involvement is important

(a) The development of standards in selected APEC countries involves consultation with the private sector (in China the 'private sector' includes state-owned enterprises) and the solicitation of feedback from the public through websites or direct consultation. In the case of Standards Australia, the usual single round of public comments on proposals for new standards may be followed by more rounds for contentious issues. Standards Australia also organises regular meetings, forums, and workshops between technical committees and key stakeholders to ensure a high level of consultation. Another model of institutionalised consultation with the private sector is the Singapore Standards Council, a body that approves the establishment and withdrawal of Singapore standards, and is comprised of representatives from the public and private sectors. Similarly, Viet Nam's Directorate for Standards, Metrology and Quality holds an annual standards planning meeting where representatives from the government, private sector, and concerned industries review proposed standards and set out a 2-month period for public comments. Although this is attainable at the national level, the absence of regional mechanisms to support such initiatives can only urge AMS to engage the private sector and other key stakeholders in regional discussions directly at the regional level through either accredited industry associations or transparent national engagement on regional negotiations.

(iv) Regular review of standards

(a) Australian standards published for more than 10 years in their current form are subject to a review process known as the Aged Standards Review for reconfirmation, revision, or even removal. This ensures that Australian standards are up to date and fit for purpose in the face of changing economic and technological developments.

(b) All AMS are signatories to the ISO, IEC, and other sectoral standards development bodies. The ISO prescribes good standardisation practices, including the periodic review of standards, to ensure their relevance with innovation and technological advances. In this regard, ASEAN could enforce a regional monitoring mechanism to ensure the relevance of regionally adopted standards applied at the national level.

(v) 'World class' conformity assessment, certification, and accreditation bodies

(a) A critical complement to the drive to align with or adopt international standards and have a well-structured and participatory standards development process is the establishment of 'world class' certification bodies that meet international requirements, are accredited, and award certifications that are accepted in export markets. Large countries like China have hundreds of certification bodies and tens of thousands of testing laboratories. Even Singapore, despite its small size, has more than 300 accredited conformity assessment bodies, including calibration and testing laboratories, inspection bodies, quality and environment management systems, product certification bodies, and hazard analysis critical control points food safety management system certification bodies. Similarly, Viet Nam's strategy is to expand its network of conformity assessment bodies that meet international standards and are globally accredited, and raise its laboratories that test the quality of key products to world class status.

(b) A corollary to the development of world class testing laboratories and other conformance assessment bodies is training in standards, technical regulations, and product quality control in universities, technical and vocational institutions, and other science and technology institutions.

(c) All AMS have an accreditation body that is signatory to the Asia-Pacific Laboratory Accreditation Cooperation–International Laboratory Accreditation Cooperation MRA. ASEAN must continue to engage national accreditation bodies at the regional

level to create a regional grouping of accreditation bodies with the ASEAN agenda at the forefront.

(vi) Extensive MRAs and involvement in international standards-setting bodies

(a) Investment in a robust standards and conformance system, including the establishment of world class conformity assessment bodies and accreditation bodies, will benefit local firms if the country has MRAs with other countries concerning the acceptance of conformity assessment results and certifications. Thus, the more MRAs a country has with other countries and/or certification bodies, the more progress it will make. Perhaps the most impressive example is that of China, which has bilateral MRAs with around 20 countries and multilateral MRAs covering 13 fields (such as food products and medical testing) involving 93 countries and covering 95% of the total global trade volume. In the case of ASEAN, it is imperative to ensure that bilateral MRAs are consistent with regional policies and aspirations.

(b) Japan is very extensively and deeply engaged in international forums related to standards and conformance, participating in 755 ISO committees and 190 IEC committees (the ISO and IEC being arguably the premier standards setting bodies in the world). This reflects the fact that Japan is very much at the forefront of research and technology worldwide. Japan's standards and conformance system is also well resourced.

(c) Nonetheless, this does not mean that less advanced countries do not need to engage in global standards setting. Viet Nam is a participant member in 16 ISO technical committees and sub-committees, and an observer member in 70 ISO technical committees and sub-committees. Viet Nam's standards development infrastructure comprises 120 technical committees, 70 of which are equivalent to ISO technical committees. This makes it easier for the committees to interact with ISO bodies (Shepherd, et al., 2018).

The above observations are practical, national-level approaches for business operators to achieve a high and competitive level of technological capability. However, it is imperative that the AMS ensure that these national approaches converge with regional aspirations and goals.

Capacity Building for Cambodia, Myanmar, and the Lao People's Democratic Republic

ASEAN has been making efforts to harmonise standards in the PISs and bring about regulatory convergence, taking into account the diversity that exists amongst the AMS, especially between CLMV and the rest of ASEAN. However, as Viet Nam has progressed significantly the emphasis is more on Cambodia, the Lao PDR, and Myanmar (CLM). The standardisation measures and efforts that CLM countries undertake in implementing ASEAN priority sectors have been established and implemented in varying degrees with respect to technical regulations, conformity assessment, and standards harmonisation. However, there are some outstanding challenges, which can be divided into three categories: (i) technical capacity, (ii) physical infrastructure, and (iii) other challenges.

Technical capacity is the main challenge for conformity assessment and harmonised technical regulations. The CLM countries reported an overall lack of qualified testing laboratories, competence in the accreditation body, and manpower to implement the post-market surveillance. On the industry side, the countries lack supporting industries and SME capability to meet the required standards, and are hindered by outdated technological equipment.

The second challenge is inadequate physical infrastructure. For example, the unavailability of testing facilities, transport infrastructure, and information technology infrastructure has hindered conformity assessment and the implementation of the post-market alert system. The third challenge is that of governance. This mainly affects the harmonisation of standards and technical regulations. For example, there are many necessary steps to revise or adopt a standard, and there is an overall lack of amendments for related laws or regulations, clear and

direct regulatory frameworks in some sectors, and communication in stakeholder consultation.

As with any reform, building capacity in standards and improving technical regulations in CLM will take time, and upgrading will require multiple and persistent efforts. However, CLM can learn and accelerate their capacity building by learning from more developed AMS such as Malaysia and Singapore. Certain policy measures have proven to be quite effective in these countries' experience. CLM's financial and technical resources are very inadequate for the improvement of standards through the proper allocation of these resources. However, effective policy measures can alleviate these embedded structural problems, which are generally associated with developing economies. For example, to improve technical capacity, more capacity building programmes should be directed towards and and prioritised for SMEs and public administrators. In the same manner, to improve physical infrastructure, governments should allocate more financial resources to establish qualified testing centres, as these are public goods with positive multiplier effects on improving standards and quality. To improve governance, as shown by the experience of Malaysia, some sectors should have technical working groups and a safety experts committee to harmonise national standards with regional and international standards to ensure that the adoption of standards is made more coherent. To reduce miscommunication and lack of consultation, it is important to schedule regular meetings between regulators and the private sector. For example, the Malaysia Productivity Corporation has established national task forces on productivity enhancement, and Malaysia also has a special task force to facilitate business, Pemudah, that works to streamline regulations. CLM can learn from Singapore's early experience in standards and quality improvement through its strong policy focus on technical education, training programmes, the active involvement of the private sector (MNCs), international organisations, and dialogue partners. Instead of establishing more universities, Singapore placed a high priority on setting up polytechnics to meet the growing need for middle-level skilled technicians. In collaboration with MNCs, Singapore set up joint training centres with its major foreign investors. For example, to support the operation of global aerospace maintenance repair and overhaul services, a sector that Singapore is currently leading, the Government of Singapore has attracted 100 international companies through various incentive

schemes to set up training and operations to carry out a comprehensive range of related activities in Singapore. The presence of accredited conformity assessment bodies has been vital to support firms such as Rolls-Royce, which required calibration services to set up a base in Singapore. Leveraging the private sector and international organisations is an effective way to overcome shortages of financial resources and a lack of competent public administrators. Capacity building is viewed as a multi-stakeholder effort by the government, the private sector, and research institutes. A key early challenge was that a large majority of firms were unaware of the benefits and costs of adopting standards. Therefore, it is difficult for developing economies to encourage firms to be more involved in the development and adoption of standards, as well as to attract foreign conformity assessment bodies to collaborate with the government and private sector. To raise awareness, it is important to engage interactively with the media on the benefits of standardisation. A political leadership strongly committed to economic reform is critically required to implement, monitor, and sustain the learning process to improve standards and quality in CLM over time.

The Economic Research Institute for ASEAN and East Asia carried out a detailed study on country-specific recommendations for ASEAN standards and conformance initiatives in CLM (Prassetya and Intal, 2015). The priorities required for building capacity on standards and conformance for the three countries differ because the countries are in different stages of development and have different human and physical endowments. For example, the Lao PDR, being the least developed of the three, needs more resources across the board to build the technical capacity of its staff and conformity assessment bodies. On the other hand, Cambodia and Myanmar more urgently require the allocation of resources to priority areas to improve the competitiveness of the private sector and SMEs, streamline the rules and regulations, and boost coordination amongst regulators and inspectors. The role of and engagement with the private sector, international organisations, and dialogue partners can be further enhanced and accelerated to improve standards and the quality of products and service in CLM. These countries could learn from Singapore's experience of attracting foreign companies by improving and upgrading standards and conformance. The important role of the ASEAN Cosmetics Association in this context is a key driver towards the signing of the framework agreement on MRAs. Similarly,

experts and professional assistance from the World Health Organization, International Conference on Harmonization, and other international organisations and dialogue partners have played an important part in conforming and converging standardisation in CLM.

Narrowing the development gap is one of the pillars of the AEC Blueprint. To improve standards and quality for CLM, more developed AMS such as Malaysia and Thailand should allocate more resources to set up training centres in CLM. To this end, Singapore has established training centres in Yangon, Phnom Penh, Vientiane, and Ha Noi to provide training and capacity building programmes. Through the Singapore International Cooperation Programme and under the management of the Civil Service Institute (International), experts and professionals from Singapore are sent to CLMV to teach intensive 1–2 week courses on a wide range of technical, public administration, and management skills as requested and approved by Singapore and the recipient country. Similarly, Malaysia and Thailand can provide specialised trainers with good expertise and experience. For example, Thailand has established expertise in agriculture, transport, and tourism; while Malaysia has expertise in electronics, global value chains, and the digital economy. Such enhanced skill transfer and capacity building programmes would go a long way to help CLM upgrade their skills, including in the area of standards and quality conformance.

Standardisation is an important part of quality infrastructure. It consists of three layers: (i) a body of technical experts who write the standards, (ii) a conformity assessment ensuring that goods and services conform to relevant standards, and (iii) an audit system ensuring the effectiveness of the conformity assessment. To overcome the fact that CLM are lacking all three of these layers, the APEC Policy Support Unit recently introduced a dashboard monitoring system, comprising a list of six indicators that can be tracked over time, to assess the strength and quality of standards and conformance infrastructure. Having timely, broad, and accurate indicators of standards and quality would certainly help CLM administrators plan and manage the upgrade process as well as solicit external assistance from the private sector and international organisations.

Success Indicators—Implementation of Regional Policies

In terms of recommended best practices to strengthen national and regional quality infrastructure, a review of the sectors in which a significant degree of harmonisation has been attained would indicate the ability of current ASEAN policies and strategies to address TBTs, and provide insight into possible gaps to be addressed in other sectors. The electrical and electronic equipment (EEE) and cosmetic sectors were some of the first to declare that they had successfully harmonised standards, technical regulations, and conformity assessment procedures in the region to support the single market and production base initiative. The EEE sector appears to have focused on putting in place soft and hard infrastructure concurrently to create an integrated EEE market that is inward-looking, as well as increasing domestic capability to meet global standards in the production base. On the other hand, the cosmetics sector is more industry-driven, indicating the business community's shared vision of an integrated market based on international benchmarks.

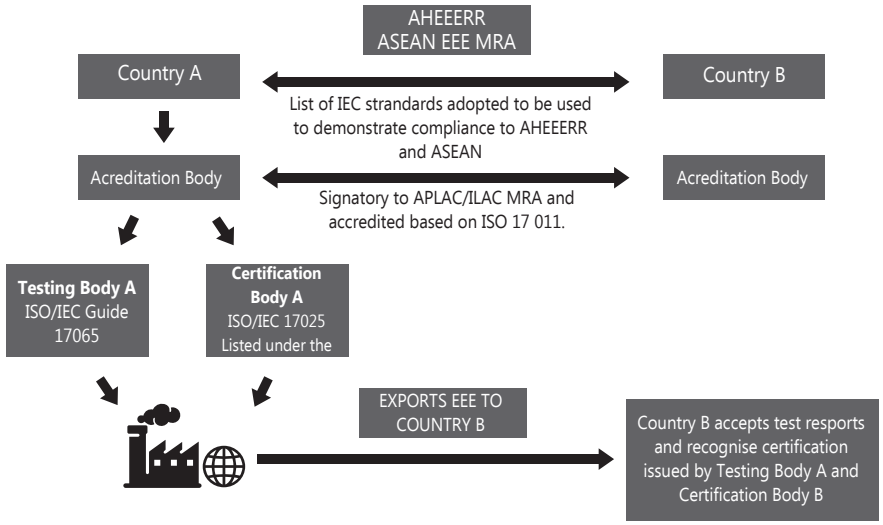
Case Study 1: The Electrical and Electronic Equipment Sector

Efforts to integrate the EEE sector were initiated with the harmonisation of regulated products, defined in the AFTA as the 20 priority products. Subsequently, the ASEAN Harmonised Electrical and Electronic Equipment Regulatory Regime (AHEEERR) was signed on 9 December 2005 with the aim of achieving deeper integration in line with the AEC goals. The agreement itself was a reiteration as well as an evolution of trade policies for TBTs carried out in parallel to support evolving political commitments. Under this agreement, the AMS committed to address regional TBTs for the EEE sector by adopting a single regulatory regime that recognises the obligation to protect consumers while meeting broader obligations to preserve the environment and establish and/or develop necessary technical infrastructure, effective market surveillance systems, and/or relevant product liability requirements (Article 4, AHEEERR, 2005).

A harmonised list of standards was adopted as a common tool to demonstrate compliance with the agreement to be used in the region, and to support the effective implementation of the AHEEERR. The agreement is further supported by the ASEAN Sectoral Mutual Recognition Arrangement for Electrical and Electronic Equipment, under which the AMS mutually recognise testing and certification bodies that meet the agreed criteria. As such, the AMS are committed to recognise and accept test reports and certifications issued by these bodies within the scope for which they have been accredited. The harmonised standards (listed on both the ASEAN and the AMS website) adopted at the regional level will be used to implement the MRA.

In comparison to the other sectors, the EEE sector has achieved a significant level of achievement in terms of harmonising technical regulations and standards, and achieving mutual recognition of conformity assessment procedures, partly due to the fact that it was one of early sectors identified for harmonisation. The implementation of regional technical regulations through the AHEEERR is fully supported by regionally adopted standards based on international benchmarks (e.g., the IEC) and accredited conformity assessment bodies with the capability to certify and test inspection and testing bodies. Figure 2 illustrates the regional quality infrastructure for the EEE sector, demonstrating the level of harmonisation achieved to support economic integration efforts.

Figure 2: Association of Southeast Asian Nations Model for Technical Barriers to Trade in the Electrical and Electronic Equipment Sector



AHEEERR = ASEAN Harmonised Electrical and Electronic Equipment Regulatory Regime, APLAC = Asia Pacific Laboratory Accreditation Cooperation, ASEAN = Association of Southeast Asian Nations, EEE = electrical and electronic equipment, IEC = International Electrotechnical Commission, ILAC = International Laboratory Accreditation Cooperation, ISO = International Organization for Standardization, MRA = mutual recognition agreement.

Source: Authors.

This model reflects the principle of 'One Test, One Certificate, Accepted Everywhere', which fulfils trade facilitation principles to reduce cross-border transaction costs and increase speed to market. In this model, all three key components of the quality infrastructure (standards, technical regulations, and conformity assessment procedures) are harmonised, and testing and inspection capacities are raised. The latter focuses on the technical infrastructure required to implement regional regulation. In summary, the success of the EEE sector was due to the pragmatic approach of laying out the necessary foundations step by step, as follows:

(i) Adopt a regional agreement for the uniform application and treatment of barriers to trade that arise for regulated products at the national level.
(ii) Adopt international standards and conformity assessment procedures to demonstrate compliance with the regional agreement.
(iii) List conformity assessment bodies for recognition to provide test reports and certifications.

Case Study 2: Cosmetics Sector

With the entry into force of the ASEAN Cosmetics Directive (ACD), the AMS agreed to support the process by which local regulators of cosmetics are notified before the products are placed in the market (versus pre-market approval), noting that cosmetics have a low-risk safety profile. This supports easing trade in this sector, aligned with trade facilitation principles. The ACD supports the use of common requirements for various regulatory elements such as labelling, good manufacturing practice, product claims, and safety evaluations across the region. Setting a common benchmark in the region enables local businesses to compete within the region and beyond.

These efforts in the cosmetics sector were driven strongly by the private sector, which recognised the benefits from such regional harmonisation in terms of business and investment, with full support from the authorities. The approach taken here appears to be a horizontal, region-wide, regulatory mechanism supported by a progressive effort to harmonise standards and other technical tools to demonstrate compliance with regional regulations. The ACD was essentially based on the EU Cosmetics Directive. A major challenge facing the region is the increase in the number of country-specific requirements introduced by some countries immediately after the entry into force of the ACD. As the cosmetics sector was amongst the first to negotiate regional technical regulation, this called into question the credibility of the ACD and the regional aspiration for harmonisation. Some of the AMS reverted to using the old approach of obtaining pre-market approval, while others imposed country-specific measurers, mainly due to a lack of support mechanisms and technical and institutional structures needed to support the full implementation of the ACD. As such, it would have been best if this sector had first evaluated national capabilities to implement regional technical regulations, identified any gaps, and defined action plans to close these.

Despite these early hurdles, the cosmetics sector continues to make progress by applying an approach inclusive of both the industry and scientific community through the establishment of a scientific body to ensure that the technical requirements put in place are based on sound scientific rationale and justifications.

Lessons learned

Further studies of successful sectors are needed to understand the impact of these approaches, their gaps, and their contribution to intra-ASEAN trade, as well as the growth of SMEs. However, based on the progress made in the EEE and cosmetics sectors, it appears that the following general approaches should be applied to all sectors:

(i) the adoption of harmonised, mandatory regional technical regulation and its transposition at the national level;
(ii) technical infrastructure to support the implementation of the regional technical regulations, including the adoption of standards and conformance procedures based on international benchmarks;
(iii) market placement requirements that take into consideration products' risk level to avoid unnecessary over-regulation that can impede trade; and
(iv) the adoption of a multi-stakeholder approach to support the effective implementation of the regional technical regulations.

Conclusion

The ASEAN Blueprint 2025 asserts that the overall vision articulated in the AEC Blueprint 2015 as well as the measures it proposed for addressing TBTs remain relevant. In general, it reiterates the need for 'accelerated implementation of harmonisation of standards and technical regulations, improvement of quality and capability of conformity assessment, enhanced information exchange on laws, rules, and regulatory regimes on standards and conformity assessment procedures. This also involves regional cooperation and agreement on measures to facilitate MSME upgrading towards regionally and/or internationally agreed standards to facilitate exports' (AEC Blueprint 2025). Therefore, as ASEAN progresses from towards 2040, the measures for standards and conformance remain relevant, along with recommendations to strengthen current efforts on the existing measures further.

Based on observations of the current policies, strategies, mechanisms, and approaches for standards and conformance in ASEAN, it is highly

recommended that ASEAN focus on the following to accelerate current efforts to address TBTs:

(i) Ensure good governance and greater transparency.

(a) The soft infrastructure that has been put in place is aligned with the WTO rules for non-restriction on trade through TBTs. As such, there is no concern with regard to creating a trade bloc within the region through this process. It is necessary to expand and develop further technical guidelines to supplement the current broader regional regulatory provisions to address TBTs for all sectors, and to meet general product safety and quality requirements. The ACCSQ should also use the NTM database (regional and international) effectively to address and assess the severity of TBTs.

(b) The AMS have committed to harmonising standards and conformity assessment procedures based on international benchmarks as stipulated in the ATIGA, APGSC, and AGRP. Although the ATIGA is legally binding, the ACCSQ uses the APGSC and AGRP as guidelines to address TBTs in the region. It is also worth considering a detailed binding commitment to strengthen the regional quality infrastructure.

(c) The drafting of technical regulations for product safety and quality must be based on an evidence-based scientific approach and justification to ensure that products placed in the ASEAN market are fit and safe for use, and to permit innovation to create a competitive marketplace that will eventually boost business growth and competition. Each sector should include the scientific component of the process as much as possible at the regional level to guide the process and ensure that regional commitments are based on sound scientific rationale, thus making room for technological advances and innovation and making the region a highly competitive market.

(d) Transparency is key for a non-trade-restrictive business environment. In this regard, rules or a monitoring mechanism should be put in place to ensure transparency in the regional

regulatory process. In this regard, the AMS should first discuss revisions and new standards, technical regulations, and conformity assessment procedures at the regional level. This would ensure that national regulations align with the regional commitments, thus reducing eventual country-specific requirements as well as creating an integrated market in the region.

(e) The Initiative for ASEAN Integration (IAI) was put in place to narrow the development gap between CLMV and the rest of ASEAN. CLMV should utilise the IAI to accelerate their standards and conformance efforts by identifying any gaps and addressing them through the IAI.

(ii) Leave no one behind.

(a) The development and implementation of technical regulations, standards, and conformity assessment procedures is a collective effort on the part of the authorities, businesses, consumers, and scientific community, amongst others. Thus, ASEAN should develop a structured approach inclusive of the various actors in the development and implementation of the technical regulations. This will not only accelerate the process through a balanced representation of the key contributors, but also ensure that the rules put in place are implemented efficiently.

(b) A harmonised approach to standards and conformance will result in business growth and product competitiveness for new innovations, thus benefiting consumers. This can be achieved if the industry and scientific community participate more strongly in the development of technical regulations.

(c) The larger corporations contribute to the shaping of the regional regulatory framework via their outsourcing business models that include smaller industries in the supply chain, enhancing the capabilities of these industries as well. Thus, industry participation in regional harmonisation efforts should be inclusive of all levels of industry, which would avoid the use of a double standard approach.

(d) Closing the gap between CLMV and the rest of ASEAN is key to achieve concerted regional growth and development. Specific programmes aligned with the goals of the standards and conformance activities should be well-defined under the IAI to help CLMV 'catch-up' to the rest of ASEAN.

(iii) Strengthen ASEAN institutions.

(a) Observations of current policies, strategies, and approaches indicate that, while ASEAN is going in the right direction, the perceived lack of (or slow) progress could be overcome through a regional mechanism to monitor the implementation of regional policies for addressing TBTs in ASEAN. An independent and/or neutral body or mechanism is critical to drive this process with a focus on the attainment of the regional goals within the agreed timelines. The mandate given to such a neutral body will ensure that all agreed commitments are implemented and identify implementation gaps.

(b) With the necessary soft infrastructure in place, the effective implementation of regional policies to address TBTs can only be achieved if the relevant and much needed technical infrastructure are put in place (this refers mainly to national and regional quality infrastructure). Gaps in national and regional technical infrastructure must be evaluated parallel to the development of regional technical regulations to avoid implementation gaps.

(iv) Strengthen national standards and conformance infrastructure in AMS. A robust national quality infrastructure is the foundation of a robust regional quality infrastructure. Most AMS should consider scaling up investment in building their national quality infrastructure and human capital to make these effective tools for competition, seamless trade facilitation, and deeper economic integration within ASEAN and with the rest of the world.

References

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