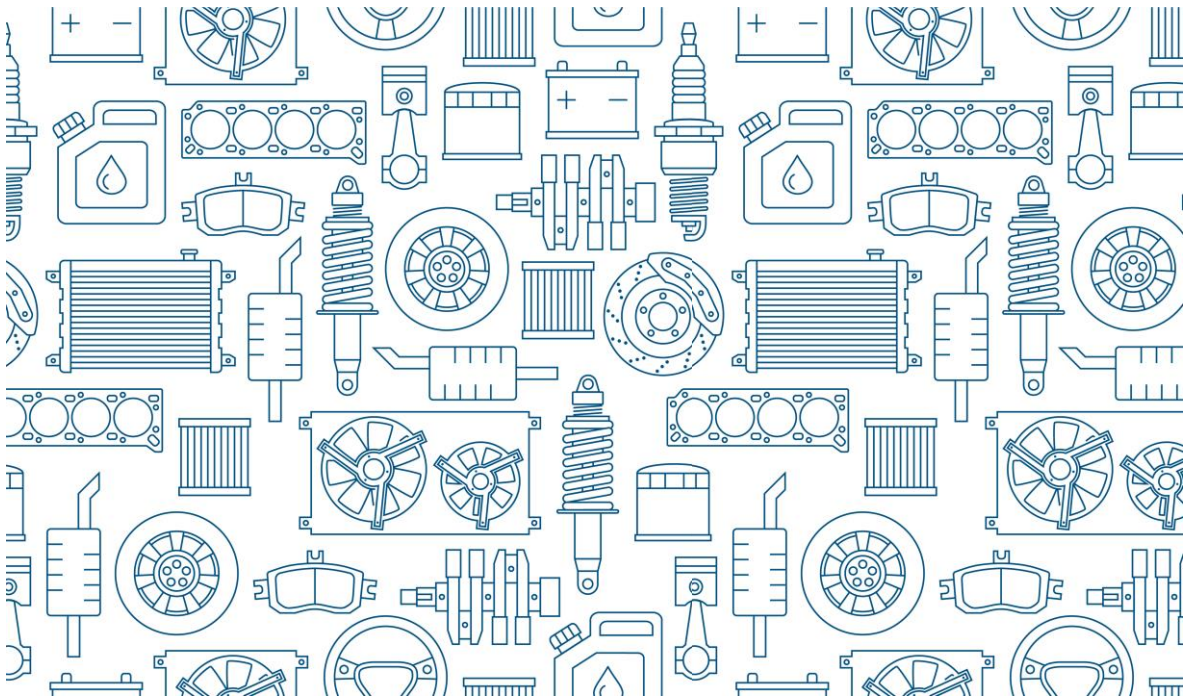




Automotive Industry in ASEAN: Towards an increased global role & enhanced safety



October 2017

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Executive Summary

2017 is a historic year for ASEAN, marking the 50th Anniversary of its establishment and the 40th Anniversary of EU-ASEAN dialogues. These anniversaries arrive at a time when both the EU and ASEAN are looking to enhance their co-operation in trade and investment, and the latter looking to further advance economic integration under the ASEAN Economic Community.

In this paper, the EU-ASEAN Business Council (EU-ABC) has looked at a number of issues that impact the development of the automotive industry in Southeast Asia. As the 6th largest automotive sales market and production base in the world, ASEAN continues to be an attractive region for growth and investment in this key industrial sector. With a burgeoning middle class looking towards increased car ownership in a region of low levels of motorisation, there is a significant opportunity for the automotive industry in ASEAN for growth in the “domestic” market. More than that, however, it can also position itself to be a global centre for production of vehicles, so long as it adopts international standards in the areas of emissions, standards, and road safety measures.

The prospect of a booming automotive industry and the development of a global manufacturing hub does not come without accompanying challenges and issues. To achieve its full potential in the automotive sector, ASEAN will have to collectively improve market access for both local and foreign companies in the automotive sector; push for further intra-ASEAN market integration through the harmonisation of standards and easing of customs procedures; and, support local workforce and technological advancements. There is also a need to move towards accepting international standards in the areas of emissions and road safety where ASEAN is, for the main part, behind global standards.

In this paper, we will address the current outlook and future challenges of the Automotive industry in ASEAN, and provide recommendations for the following key areas which we believe will help to advance this key industrial sector and position it for further growth in a global context:

- Environmental Issues
- Road Safety in ASEAN
- Intra-ASEAN Market Integration
- Trade Issues
- Education & Human Capital Development

Besides seeking to deepen and grow the existing trade and investment relationship between ASEAN and Europe, the EU-ABC, together with our Automotive Advocacy Group, desires to address these challenges working alongside policy makers and industry stakeholders to produce a holistic and compatible framework to further develop the automotive industry in ASEAN, whilst improving social and economic conditions of the region. This definitely requires stronger engagement and deeper dialogue between both the public and private sector, with the recommendations in this paper as a starting point.

Table of Recommendations

Topics/ Issues	Key Objectives	Short-Term Recommendation (12/2018)	Long-Term Recommendation (2019 and beyond)
Environmental Issues			
Emission Standards	<ul style="list-style-type: none"> • Raise emission standards across the region to: facilitate reductions in the environmental impact of vehicles; support more efficient technologies; and, to facilitate export business. 	<ul style="list-style-type: none"> • Acceleration of Euro Standards (especially Euro4) throughout ASEAN, in accordance with fuel quality road map. • Develop a clear timeline for the implementation of emission standards to support long-term business planning. 	<ul style="list-style-type: none"> • Harmonise to Euro emissions standards and certification throughout ASEAN to further integrate ASEAN Markets and facilitate increased intra-ASEAN trade.
Fuel Standards & Infrastructure	<ul style="list-style-type: none"> • Harmonise fuel regulations and fuel properties throughout ASEAN in line with international/Euro standard guidelines. 	<ul style="list-style-type: none"> • Provide clarity on national fuel standards, fuel properties and infrastructure road maps. • Develop new fuel availability road maps to match proposed new emission regulations. 	<ul style="list-style-type: none"> • Ensure fuel availability (fuel introduction) and country-wide accessibility (fuel infrastructure) prior to new emission regulation implementation.
CO₂ based vehicle taxation	<ul style="list-style-type: none"> • Enhance business planning, the overall approval process should be clear, simple, and not bureaucratic with definite and reasonable approval timelines. • Process related requirements in close consultation with the industry and with a view to minimise any additional costs or burdens to the industry or end-consumers. 	<ul style="list-style-type: none"> • Introduce technology neutral taxation schemes that are based on CO₂ emissions or fuel consumption to encourage a broad introduction of environmentally friendly low emission vehicles. • CO₂ based vehicle taxation for passenger cars should fully recognise test results of relevant UN regulation certificates as an alternative for excise tax assessment. 	<ul style="list-style-type: none"> • Implement a harmonised system as it is of key importance to the automotive industry. • Long-term orientation to safeguard lead time for development and also for customers.

Topics/ Issues	Key Objectives	Short-Term Recommendation (12/2018)	Long-Term Recommendation (2019 and beyond)
	<ul style="list-style-type: none"> Announce details of approval procedures in advance to provide sufficient lead time for business preparation prior to implementation (recommended that a 3-year notice period be provided). 	<ul style="list-style-type: none"> Agreement on a stepwise harmonisation of tax systems across ASEAN markets. Linear system on the basis of CO₂ is preferable, with huge steps regarding thresholds to be avoided. Alternative drive trains e.g. xEVs (BEV, PHEV) should be categorised as low emission vehicles with consequential lower levels of taxation in order to give OEMs the opportunity to offer the technology at customer acceptable prices. 	
Biofuels	<ul style="list-style-type: none"> Acceleration of Euro emission standards requires supportive biofuel regulations, especially fuel quality improvements (desulphurisation, exclusion of corrosion and material incompatibility risks). 	<ul style="list-style-type: none"> Increase private-public sector consultation on biofuel policies. When discussing the content rates of biofuels, the impact on engines and vehicle performance (including vehicles in use) should be studied carefully along with the stabilisation of biodiesel quality. 	<ul style="list-style-type: none"> Ensure biofuel standards across ASEAN are aligned and in step with acceleration of improved emission standards as per the above. Diesel will remain a highly relevant technology to help reduce ASEAN's CO₂ footprint.
Road Safety			
Safety Standards	<ul style="list-style-type: none"> Enable ASEAN automotive companies to raise the quality of their production by harmonising global safety regulations (UNECE 1958/98) into national law. This facilitates 	<ul style="list-style-type: none"> Promote the recognition and deployment of UN regulations across ASEAN. Put in place a road map to harmonise national with international 	<ul style="list-style-type: none"> Adjust regulations to ensure that the most significant safety technologies are made compulsory: e.g. Electronic Stability Control (ESC) for passenger cars and light commercial vehicles and Anti-Lock

Topics/ Issues	Key Objectives	Short-Term Recommendation (12/2018)	Long-Term Recommendation (2019 and beyond)
	<p>ASEAN products to access foreign markets (e.g. US, EU, CN, JP) that have adopted and recognise modern safety standards.</p> <ul style="list-style-type: none"> • Reduction of road accidents and fatalities to protect ASEAN consumers and help governments in achieving road safety targets which they committed to in the ASEAN Regional Road Safety Strategy 2015. 	<p>automotive standards (UN Regulations) which would have a significant positive impact on the development of the ASEAN automotive industry and allow local manufacturers to export to all countries who are contracting parties of the UNECE 1958/98 Agreement (including the EU).</p>	<p>Braking System (ABS) for two-wheelers > 125 cc.</p>
Road Safety Initiative	<ul style="list-style-type: none"> • Implementation of an integrated approach that combines consumer awareness, safer infrastructure, safer vehicles and increased post-crash efficiency. • The availability of high-quality and comparable data relating to all road users, including cyclists and pedestrians, is essential for developing and designing highly effective systems. 	<ul style="list-style-type: none"> • Revise safety regulation and formulation of new equipment obligations for vehicles, based on differentiated cost/benefit analysis that is tailored to different vehicles and their intended uses. • Development and maintenance of road infrastructure and connectivity. • Support of safety promotion campaigns in conjunction with experienced organisations, e.g. ASEAN NCAP, and the industry. 	<ul style="list-style-type: none"> • Should include measures to cover infrastructure requirements to promote greater use of vehicle-to-x (v2x) communication. • Promote advance driver assistance systems.
ASEAN Integration			
MRA on Type Approval & Harmonisation of Regulatory Regime on Automotive Sector	<ul style="list-style-type: none"> • The harmonisation of automotive product standards is an essential basis for a single manufacturing base as envisioned under the AEC. 	<ul style="list-style-type: none"> • All AMS to review their national legislation in order to align with the regional initiatives on market integration. 	<ul style="list-style-type: none"> • All AMS agree to become contracting parties to the 1958 UNECE Agreement (schedule to be agreed and adequate time for CLMV).

Topics/ Issues	Key Objectives	Short-Term Recommendation (12/2018)	Long-Term Recommendation (2019 and beyond)
(including homologation and certification processes)	<ul style="list-style-type: none"> • All ASEAN Members states should continuously engage in further development of the MRA on Type Approval, including its second phase encompassing 32 standards. • All ASEAN member states should avoid complexity and inefficiency in the implementation of the ASEAN MRA. • ASEAN MRA on Type Approval should not be limited to automotive products (components/systems) manufactured within ASEAN only. • Accept the widely recognised EU-type approval and E-mark as proof of UN compliance. 	<ul style="list-style-type: none"> • AMS should conduct regular simulation exercises to clarify different interpretations and thereby ensure smooth implementation for the future. • AMS to implement already identified UN Regulations whilst finalising the ones still to be harmonised. • Formulation of long-term integration plan (based on 1958 UN ECE Agreement) - endorsement by ACCSQ and SEOM. • Establishment of a schedule for implementation by AMS utilising the inherent flexibility of the 1958 UNECE agreement. • Development of ASEAN Agreement on Harmonisation of Automotive Regulatory Regimes, which would supplement the MRAs. • Participation of private sector groups (including EU-ABC Automotive Group) in APWG meetings under ACCSQ. 	<ul style="list-style-type: none"> • All AMS to adopt UN Vehicle classification either as a part of the framework/agreement or as a guideline. • All AMS agree to adopt UN vehicle classification system in national regulation. • All AMS agree to adopt the type approval approach for motor vehicle regulation (progressing from recognition certification of components to recognition of type approvals). • All AMS legislation to advance adoption of UN regulations in national legislation. • AMS can go beyond the MRA and harmonisation of technical requirements and to look into harmonising the regulations. • ASEAN, through APWG, to establish targets for harmonisation through adoption of UN regulations. • AMS to agree on and implement identical testing procedures using the same methodologies, standards and application regulations.
Customs processes	<ul style="list-style-type: none"> • Move to simplify customs procedures for intra-ASEAN movements, 	<ul style="list-style-type: none"> • Self-certification for certificates of origin & exemptions for low-value goods 	<ul style="list-style-type: none"> • Full implementation of the ASEAN Single Window.

Topics/ Issues	Key Objectives	Short-Term Recommendation (12/2018)	Long-Term Recommendation (2019 and beyond)
	reducing the cost of trade and enhancing efficiency.	<ul style="list-style-type: none">• Clear, simple, and non-bureaucratic processes to facilitate intra-ASEAN trade, same interpretation of certificate of origins (especially Form D).	<ul style="list-style-type: none">• Enhance tracking and transparency on customs declarations to allow for downloads of import declarations by traders.
NTB Removal (including national testing requirements)	<ul style="list-style-type: none">• Removal of policies, practices, and other measures used to control, discourage or prevent competitive development, foreign investment and trade not in the usual form of a tariff (e.g. import quotas, national testing requirements, local content, etc.)	<ul style="list-style-type: none">• Recommend ASEAN to adopt the automotive sector as an early initiative for identifying and scheduling the removal of NTBs.• ASEAN to establish a dedicated working group which would work with industry groups to identify the NTBs affecting the sector, utilising the ASEAN Trade Repository and National Trade Repositories as a starting point.• Develop a programme for the removal of NTBs in line with the concepts set out in the Master Plan on ASEAN Connectivity 2025 (MPAC2025).	<ul style="list-style-type: none">• Based on the work under the short-term recommendation, put in place a firm timetable for ASEAN Member States to remove the identified NTBs affecting the automotive sector, with the target of removing them by no later than the end of 2021.
IPR and Illicit Trade	<ul style="list-style-type: none">• Increase co-operation between enforcement agencies and private sector to help move towards the elimination of illicit trade in auto-parts.	<ul style="list-style-type: none">• Authorities and industry need to work closer together to protect interests and rights of consumers. Enhanced co-operation in the areas of product identification, and enforcement of IP rights should be implemented to ensure that illicit trade and IP infringement do not have an adverse impact on public safety and the revenues of manufacturers and governments.	
Automotive Policies			
NAPs - Need to focus on high tech and innovation; removal of contradictory policies	<ul style="list-style-type: none">• Increased synergy between the AMS on the development of NAPs to ensure that domestic focussed market distortions	<ul style="list-style-type: none">• Establish regular private-public sector dialogue in the development and revision of NAPs early on.• Industry policy concepts should not discriminate against imports and foreign investors, and should be in compliance with WTO rules.	

Topics/ Issues	Key Objectives	Short-Term Recommendation (12/2018)	Long-Term Recommendation (2019 and beyond)
	<p>do not impinge on overall AEC related aims and objectives.</p> <ul style="list-style-type: none"> • Industrial schemes promoting innovation for optimum production conditions are to be welcomed. • Transparent and WTO-conform schemes are essential for long-term planning security. 		
Electric and autonomous mobility policies in ASEAN	<ul style="list-style-type: none"> • The political will to promote not only electric but also autonomous drive systems - with autonomous and connected vehicles having the potential to make transport more efficient, sustainable and safe - must find its expression in national automotive policies and initiatives. This should also include commercial vehicles, e.g. for delivery/logistics. • Levers to facilitate necessary framework conditions include a supportive regulatory framework, as well as compatible European and international standards and available infrastructure. The legal framework needs to be aligned 	<ul style="list-style-type: none"> • Enhancing dialogue between private and public sector to formulate and implement necessary and ideally uniform international framework conditions for the ongoing development and successful introduction of this technology. • Government support of market uptake of electrified vehicles necessary. • Incorporate learnings from benchmark countries in local policies. • Availability of sufficient charging infrastructure is key to success. • Need for national or/and cross ASEAN programs to initiate built up of networks on the basis of international standards (fast charging with 	<ul style="list-style-type: none"> • Coverage of infrastructure to be developed from pilot regions to market wide networks. • Establishment of an intelligent infrastructure to support vehicle-to-x (V2X) communication. • Ensure safe access to vehicle data e.g. via Extended Vehicle. • A harmonised legal framework that applies across borders is a requirement for the ongoing development and successful introduction of this technology.

Topics/ Issues	Key Objectives	Short-Term Recommendation (12/2018)	Long-Term Recommendation (2019 and beyond)
	<p>with the progress of technology in order to avoid an imbalance between what can be achieved by technology and what is permitted by law.</p> <ul style="list-style-type: none"> • A look at the international scene clearly shows that financial inducements have also a particularly strong effect. 	<p>Combined Charging System CCS).</p> <ul style="list-style-type: none"> • Co-operation with Grid companies requested. • Development of billing systems. • AD: Set up cross sector working group to discuss the role of digitalisation as enabler of AD and a driver of future mobility. 	
Trade Issues			
Free Trade Agreements with the European Union	<ul style="list-style-type: none"> • Elimination of automotive duties (incl. parts and components) between the EU and AMS. • Application of EU-standard Rules of Origin wherever practicable. • Elimination of NTBs. • Promotion of recognition and deployment of UNECE regulations. • Efficient dispute settlement and safeguard mechanism with effective monitoring system. • Follow-up process with business to monitor implementation. • Support for region-to-region FTA as a means of advancing ASEAN wide standards. 	<ul style="list-style-type: none"> • EU-ASEAN FTAs to speed up the reduction of tariffs to more reasonable timelines. • Increased consultation with the European automotive industry operating within ASEAN from FTA negotiators. 	<ul style="list-style-type: none"> • EU-ASEAN FTAs to speed up the reduction of tariffs to more reasonable timelines. • Acceleration of move towards a region-to-region FTA as a means of supporting enhanced ASEAN integration.

Topics/ Issues	Key Objectives	Short-Term Recommendation (12/2018)	Long-Term Recommendation (2019 and beyond)
RCEP & TPP11	<ul style="list-style-type: none"> • Inclusion of automotive chapter in RCEP. • Increase transparency in negotiations process. • Enhance protection for foreign direct investment. 	<ul style="list-style-type: none"> • Intensify dialogue with industry bodies to ensure greater transparency and the development of a usable and meaningful agreement. 	
Education & Human Capital Development			
Free Movement of Labour	<ul style="list-style-type: none"> • Facilitate mobility of skilled labour within ASEAN to counter shortage of skilled labour. 	<ul style="list-style-type: none"> • Establish express visa system for internal intra-ASEAN staff movements for those on management development programmes or those identified to help staff shortages. • Accelerate the ASEAN MRA programme for more areas of skilled labour that impact on the automotive sector. 	
Vocational, Technical Training / Dual education schemes	<ul style="list-style-type: none"> • Establish vocational training programs, supported by public and private sector partnerships to help fill skill shortages gaps. 	<ul style="list-style-type: none"> • Development of private/public sector vocational training programmes. 	<ul style="list-style-type: none"> • Increase national efforts to incorporate industrial training schemes as part of national curriculums.

The Automotive Industry in ASEAN

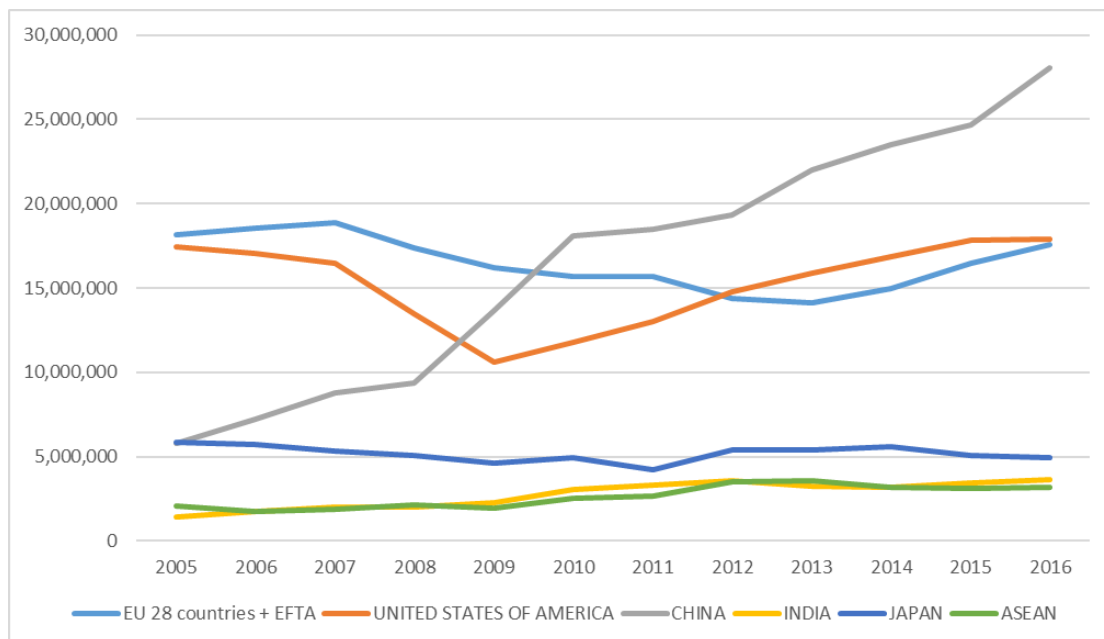
ASEAN is at the centre of the dynamic Asia Pacific region. It is a grouping of 10 diverse and fast-growing economies, and represents a region with massive potential. The combination of factors such as high and stable GDP growth; dynamic demographics; increasingly skilled labour; and, high rates of urbanisation create unique opportunities. This is especially true in the automotive sector where rapid economic development coupled with relatively low motorisation levels in much of the region means that there is much scope for the industry to grow, both to serve the ASEAN market and, if the right policies are put in place collectively across Southeast Asia, to serve global export markets.

ASEAN as Automotive Market and Production Hub

The ASEAN region remains attractive for growth not just from the perspective of local sales to a 630m population, but also as a manufacturing hub for Asia and beyond. Among the potential growth factors for the ASEAN automotive market are a relatively low penetration of vehicles; market expansion due to rise of income growth; and the increasing size of the middle class which is expanding its disposable income.

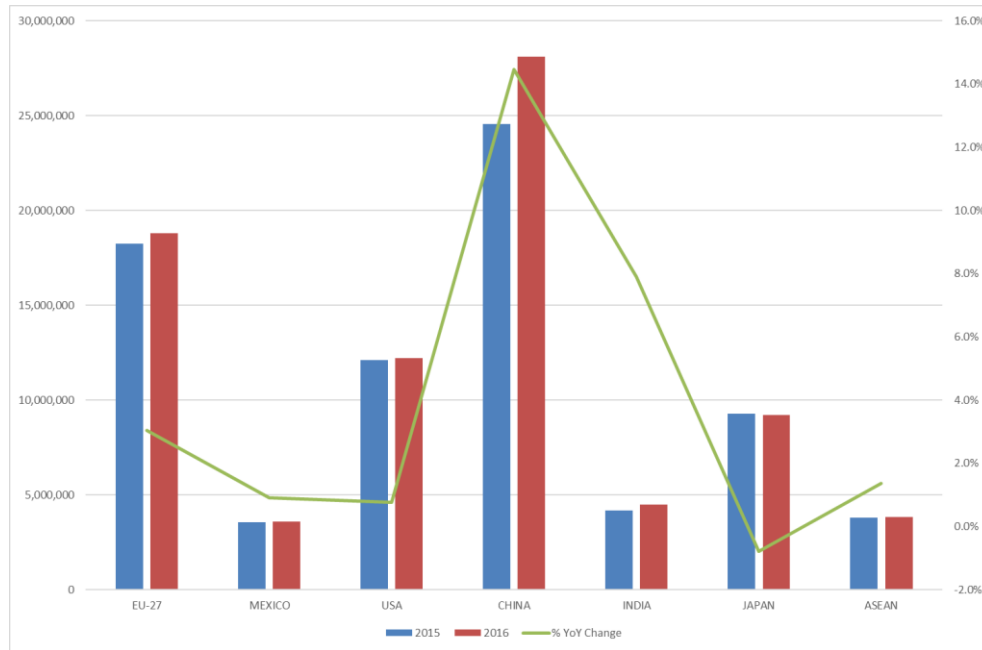
ASEAN is currently the 6th largest automotive sales market in the world and forecasted by many industry observers to move to the 5th largest sales market within the next five years. At the moment, it is also the 6th largest production base globally (see figures 1 and 2 below).

Figure 1: Top Global Automotive Markets - Sales (all vehicles)¹



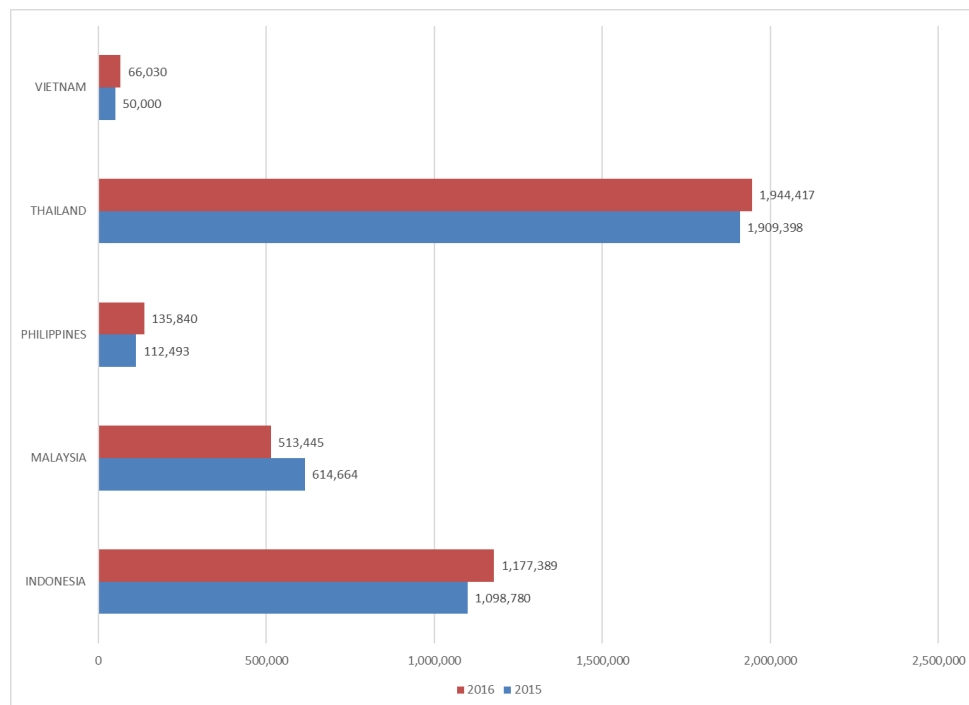
¹ International Organization of Motor Vehicle Manufacturers <http://www.oica.net/category/sales-statistics/>

Figure 2: Top Global Production Bases (all vehicles) 2015-2016²



Production levels across ASEAN vary considerably, with the production of vehicles in the region dominated by Thailand (see Figure 3 below) with Thailand and Indonesia dominating the sales markets statistics (see Figure 4 below).

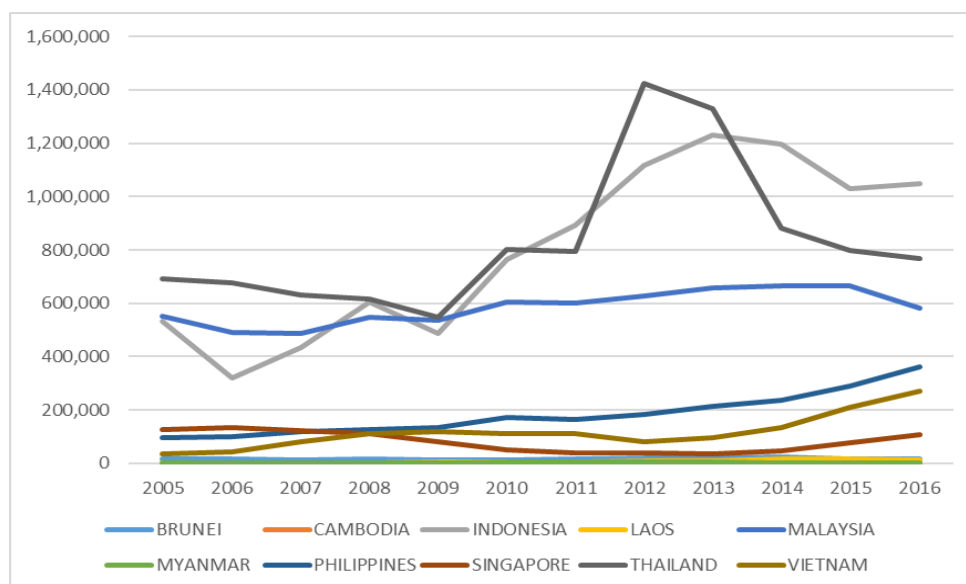
Figure 3: ASEAN Vehicle Production Comparison 2015-2016³



² <http://www.oica.net/category/production-statistics/>.

³ *ibid*

Figure 4: ASEAN Country Market Share in Vehicle Sales 2005-2016 (all vehicles)⁴



A major factor contributing to the positive outlook for ASEAN automotive industry is the low level of motorisation in the region which, when taken together with increasing purchasing power from a burgeoning middle class, should drive significant growth in the industry (See Figure 5). However, it is important to note that the motorisation rate among ASEAN countries is highly diverse. CLMV countries are typical for low car ownership rates of around 32 cars per 1,000 people compared to 75 cars per 1,000 people in Indonesia and 184 in Thailand⁵.

The share of households that own a car in Vietnam, Indonesia or Philippines range between 2% and 7%. As many two-wheel vehicle users in these countries transfer to four-wheel vehicles, the car market will grow significantly⁶ but that will also bring other challenges to the region in the form of increased congestion, inadequate infrastructure and environmental issues. Furthermore, in Asia Pacific, 93% of potential car owners expressed a willingness to upgrade or repurchase cars when their financial situation improves, higher than that in Western markets⁷. 70% of respondents to a survey conducted for Nielsen's 2015 Global Consumer Confidence Index expressed intention to buy a brand new or second-handed car within the next two years in Asia Pacific⁸.

⁴ International Organization of Motor Vehicle Manufacturers <http://www.oica.net/category/sales-statistics/>

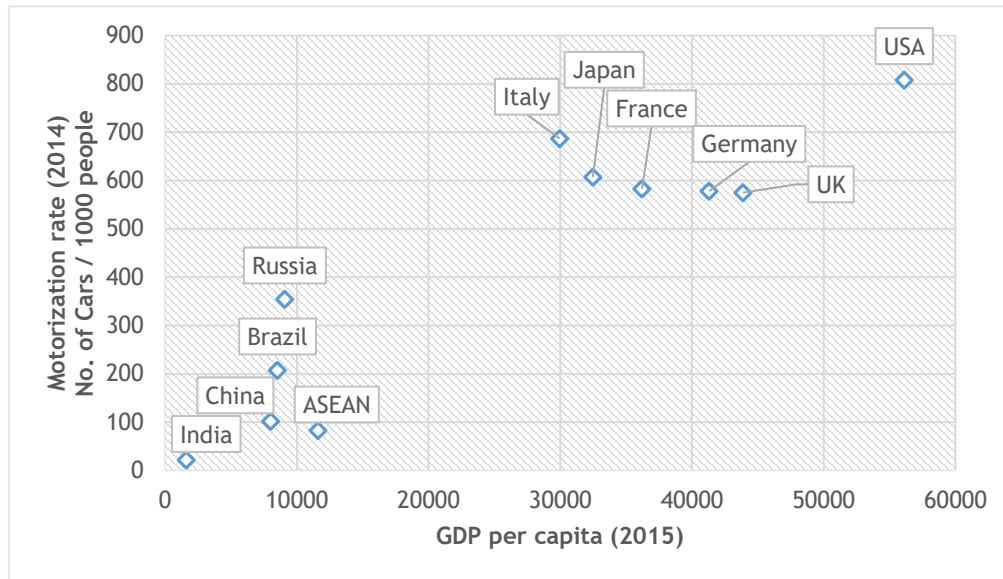
⁵ PwC, Riding Southeast Asia's automotive highway, 2015. See https://www.pwc.com/gx/en/growth-markets-centre/publications/assets/Riding_Southeast_Asia_automotive_highway.pdf.

⁶ PwC, Riding Southeast Asia's automotive highway, 2015. See https://www.pwc.com/gx/en/growth-markets-centre/publications/assets/Riding_Southeast_Asia_automotive_highway.pdf.

⁷ Nielsen, 2016 Global and China Vehicle Consumption Trend White Paper, 2016.

⁸ Ibid.

Figure 5: Motorisation vs GDP per Capita in Key Global Markets⁹



Environmental Issues

Efficient transportation and mobility are the cornerstones of growth. With growing economies and increasing industrialisation, the need to improve on environmental protection measures becomes more important. This is especially true in ASEAN, where exceptionally high urbanisation rates are putting pressure on the natural environment. Expanding demand for vehicles, which is a consequence of economic growth and increased urbanisation, means that greater measures to reduce the environmental impact of the automotive industry becomes more and more important.

Dealing with the associated environmental issues coming from the automotive industry requires a multi-pronged, multi-stakeholder approach. This must be led by governments across the region, preferably working closely together with the automotive industry to ensure a harmonised operating environment for producers, suppliers, commercial users and consumers. It is important that a holistic approach is taken to ensure compatibility between various regulations, and that the appropriate infrastructure and supplies (particularly fuel) are in place.

Emissions Standards

The introduction of highly efficient conventional and alternative driving systems is a compulsory prerequisite for meeting emission targets in all markets. Modern engines are far less polluting than their predecessors and further advances in the engine-technology will continue this trend. Governments can force the pace of development and the introductions of more economical and efficient engines through regulation. This aims to reduce harmful emissions, and thus make manufacturers of vehicles sold in the ASEAN market use the most modern engine technologies, rather than relying on older engine types and associated technologies.

In order to assist in reducing the environmental impact of vehicles, there is a clear need in the region to raise emission standards. This would facilitate reductions in the environmental impact of vehicles; support more efficient technologies; and, also help to facilitate an export business for the region as

⁹ The World Bank, OICA, IMF. For the developments in motorization levels of ASEAN countries ranging 2001-2015, see <http://portal.gms-eoc.org/charts/overview/vehicle-motorization-index>.

it would bring standards in the region more into line with those used elsewhere in the world. Moving collectively to put in place emissions standards that are either the same as, or in line with, accepted international norms, such as Euro Standards¹⁰. To help the region reduce harmful emissions from vehicles, to meet international obligations such as those set out in the Paris Accord (2016) on Climate Change and the Kyoto Convention (1997), it is recommended that ASEAN:

- Accelerate the introduction of Euro Standards (especially Euro4) throughout Southeast Asia, in accordance with a fuel quality road map (the standard of fuel available is crucial to ensuring that engines and associated systems operate at prime efficiency).
- Develop a clear timeline for the implementation of emission standards to support long-term business planning;
- Harmonise to Euro emissions standards and certification throughout ASEAN to further integrate ASEAN Markets and facilitate increased intra-ASEAN trade (if the AMS introduce non-compatible domestic standards it will reduce the ability of manufacturers to serve different markets).

Fuel Standards & Infrastructure

Introducing improved emission standards by themselves is not the sole answer to reducing the environmental impact of vehicles. Improvements in engine technologies also require higher quality fuels to ensure that the engines and the associated components work optimally, reducing fuel usage and the level of harmful toxic gases. It is essential, therefore, that alongside introducing more stringent emission standards, governments across the region also mandate that increases in fuel standards are introduced to markets. This will also involve consequential improvements to the fuel distribution infrastructure, from the refinery to the pump.

Differences in fuel standards within the region can cause practical difficulties when exporting vehicles to another country, with some fuel standards incompatible with more modern fuel-efficient and environmentally-friendly engines. The tendency in the region is to commit to increasing the fuel standards, however such initiatives are far from reality and develop into contradicting policies. Fuel standard policies, therefore, also need to be aligned across the region and suitable infrastructures have to be put in place to support it. As refineries serve the whole region, and in many parts of ASEAN vehicles cross borders, in order to ensure the most cost efficient and effective results, it is also essential that some form of harmonization of fuel regulations and fuel properties is introduced throughout ASEAN. These need to be in line with international/Euro standard guidelines. Parallel to this requirement, it is recommended that the ASEAN Member States:

- Provide clarity on national fuel standards, fuel properties and infrastructure road maps.
- Develop new fuel availability road maps to match proposed new emission regulations.
- Ensure fuel availability (fuel introduction) and country-wide accessibility (fuel infrastructure) prior to new emission regulation implementation.

CO₂ Based Vehicle Taxation Systems

Within ASEAN Vehicles are subject to some of the highest duties, taxes and fees in the world. In some cases, these additional costs to be borne by the customer more than double the net retail price.

European vehicles are at a disadvantage, as current taxation regimes in ASEAN are mostly based on the vehicle price. As a result, cars with state of the art technologies, which tend to be higher in terms of production costs and therefore vehicle price, are being penalised as they receive the highest overall tax burden.

¹⁰ EU Regulation No 443/2009 sets an average CO₂ emissions target for new passenger cars of 130 grams per kilometre. The target is gradually being phased in between 2012 and 2015. A target of 95 grams per kilometre will apply from 2021

With a clear focus on the emissions output or fuel consumption of the vehicle as an alternative basis for vehicle taxation, the best (cleanest and safest) vehicle technology will be incentivised and will be more affordable to the end consumer. This will enhance competitiveness and productivity among all market players and give the consumer a wider range of environmentally friendly options.

With such a taxation scheme, consumers would be more likely to choose more economical and efficient vehicles low in CO₂ emissions and lower on fuel consumption. Over time, the CO₂-based system would lead to a gradual decrease in the usage of old, high-polluting vehicles, with a consequential reduction of overall fuel consumption which in turn would enable governments to more easily reduce fuel subsidies (where applicable).

To enhance business planning, the overall approval process for introducing a CO₂ taxation schemes should be clear, simple, and non-bureaucratic with definite and reasonable approval timelines. In addition, related requirements should be processed in close consultation with the industry and with a view to minimise any additional costs or burdens to the industry or end-consumers. Ideally, details of approval procedures should be announced in advance to provide sufficient lead time for business preparation prior to implementation (it is recommended that a 3-year notice period be provided).

In order to achieve the introduction of fair CO₂ taxation schemes in ASEAN it is recommended that:

- Collectively introduced technology neutral taxation schemes that are based ideally on CO₂ emissions or fuel consumption to encourage a broad introduction of environmentally friendly low emission vehicles;
- CO₂ based vehicle taxation for passenger cars should fully recognise test results of relevant UN regulation certificates as an alternative for excise tax assessment;
- There should be agreement on a stepwise harmonisation of tax systems across ASEAN markets;
- A Linear system on the basis of CO₂ is preferable, with huge steps regarding thresholds to be avoided. Alternative drive trains e.g. xEVs (BEV, PHEV) should be categorised as low emission vehicles with consequential lower levels of taxation in order to give OEMs the opportunity to offer the technology at customer acceptable prices.

Biofuels

There is an increasing trend in ASEAN to introduce biofuels for the use in road vehicles. Whilst this trend is welcomed it is essential that supportive biofuel regulations are also introduced to assist with the acceleration of Euro emission standards, especially with regard to fuel quality improvements (e.g. desulphurization, exclusion of corrosion and material incompatibility risks) so that the biofuels remain compatible with the overriding requirement to reduce emissions and also ensure efficient fuel consumption. The quality of the fuel is crucial for the vehicle manufacturer. The use of residual materials must not diminish their quality and combustion properties under any circumstances. To that end it is recommended that:

- There be increased private-public sector consultation on biofuel policies.
- When discussing the content rates of biofuels, the impact on engines and vehicle performance (including vehicles in use) should be studied carefully along with the stabilisation of biodiesel quality.
- Biofuel standards across ASEAN are aligned and in step with acceleration of improved emission standards as per the above.
- Diesel remain a highly relevant technology to help reduce ASEAN's CO₂ footprint

Road Safety in ASEAN

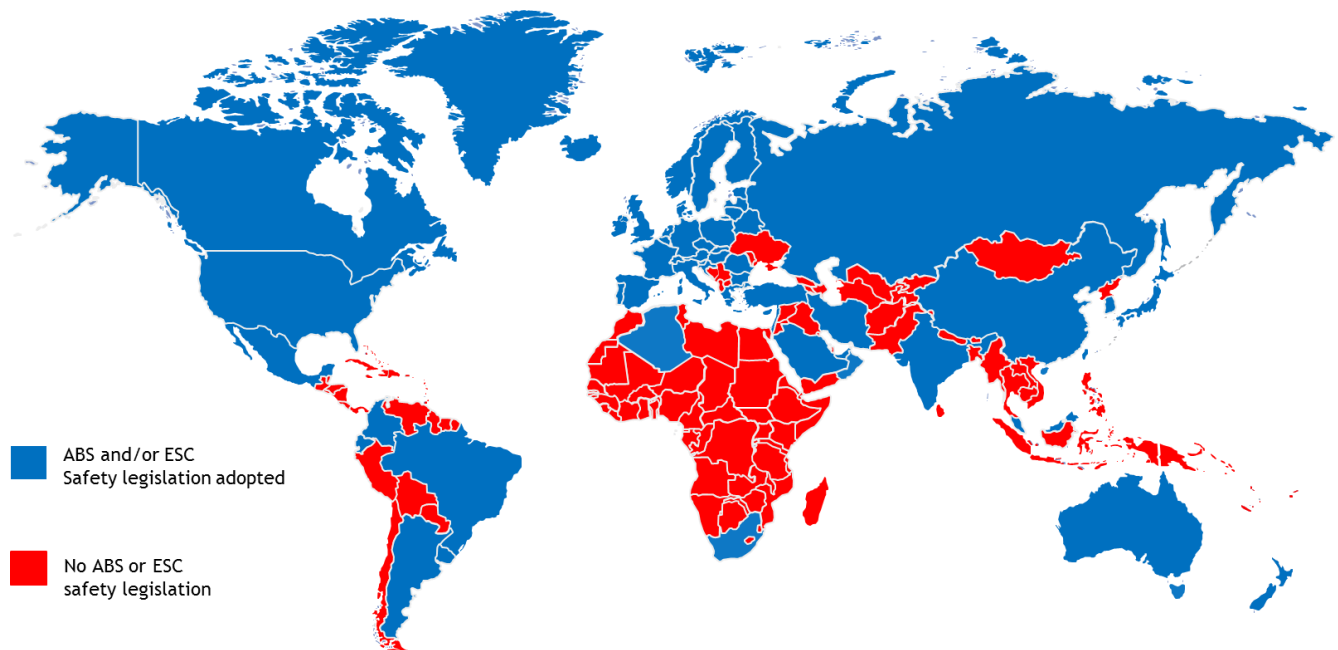
Road safety in ASEAN is a pressing issue. Some of the highest road safety death rates in the world are found in the region. It is absolutely necessary for the governments in the region to put in place measures to reduce the level of road accidents and deaths, such as mandating improvements in vehicle safety features, as well as the introduction of better road safety education programmes and enforcement activities.

Worldwide, many countries have already adopted road safety standards. However, in ASEAN very few nations have introduced safety regulations, putting the region on a comparable level to under-developed regions such as Africa, South America or the Middle East (Figure 6).

Not adopting higher road safety standards will hinder the opportunities that can be realised by exporting to modern markets with higher safety standards. Enabling ASEAN automotive companies to raise the quality of their production by harmonising global safety regulations (UNECE 1958/98) into national laws will facilitate ASEAN products to access foreign markets (e.g. US, EU, CN, JP) that have adopted and recognised modern safety standards. In addition, implementing improved road safety standards will help to reduce government expenditure, reduce healthcare needs, lower insurance costs, and lead to less damage to property. There are, therefore, strong economic and social reasons for implementing higher road safety standards through legislation.

In order for ASEAN countries to export to any markets with modern road safety standards, the EU-ABC strongly encourages the governments of Southeast Asia to adopt improved safety regulations (e.g. ABS or ESC)¹¹ as the lack of sufficiently high safety standards will preclude exported vehicles from entering other markets where minimum safety standards would not be met. This will also enhance road safety in ASEAN, lowering road traffic mortality rates.

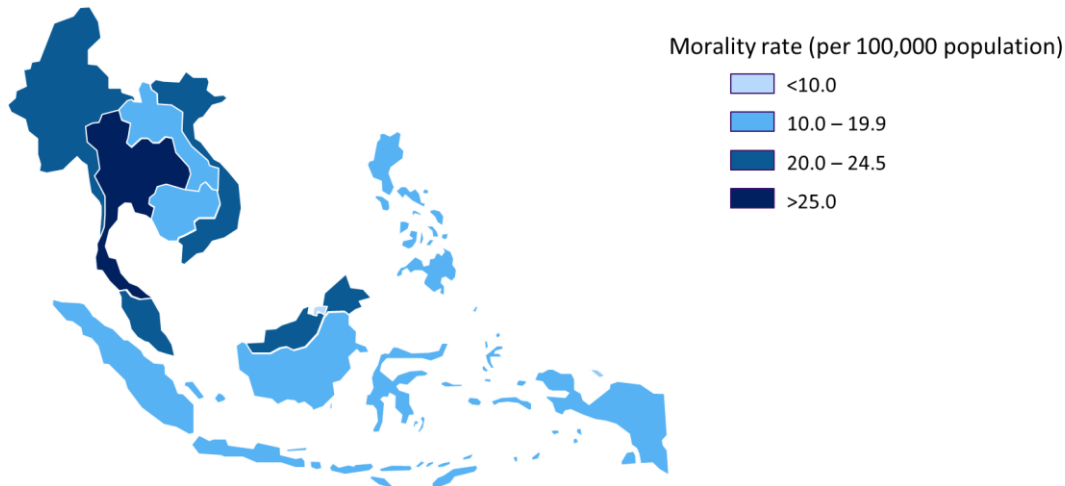
Figure 6: Safety Legislation across the World¹²



¹¹ Anti-lock braking system (ABS) is an electronic automotive safety system for the vehicle braking system. Electronic Stability Control (ESC) is computerized technology improving vehicle's stability by detecting and reduction loss of traction.

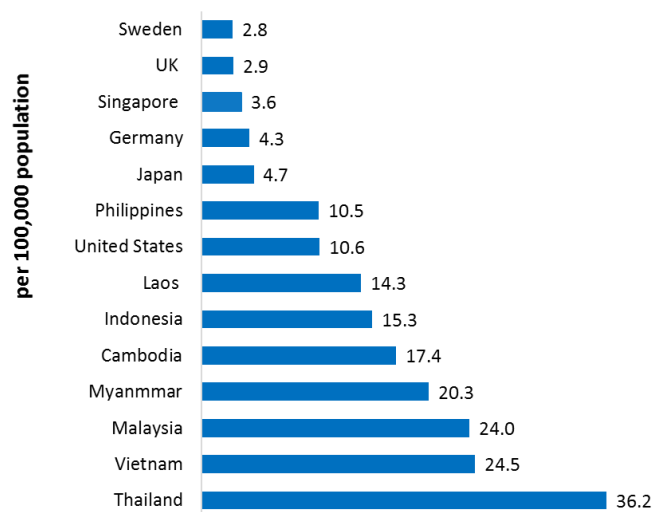
¹² Provided by Bosch.

Figure 7: Road Traffic Mortality Rate in ASEAN- 2015¹³



The ASEAN Regional Road Safety Strategy¹⁴ released in 2016 sets out a basic framework for the joint goals in the area of road safety. The Regional Road Safety strategy is in line with the UN Decade of Action, and the ASEAN Transport Ministers have committed to halving projected road traffic deaths by 2020. Though to date there is little sign that legislative action is being taken to improve road safety for either four or two-wheeled vehicles. However, each of the ASEAN Member States has reached different levels of maturity in response to road safety concerns. Road safety, in general, is closely linked to the development of the road infrastructure, as well as safety standards of vehicles. ASEAN Member States should, therefore, consider and carefully examine the implementation of safety standards developed by the United Nations.

Figure 8: Road Traffic Deaths per 100,000 of population 2015¹⁵



¹³ Source: WHO (2015) Available at:

http://www.who.int/violence_injury_prevention/road_safety_status/2015/GSRRS2015_data/en/ [Accessed: 15/09/2017]

¹⁴ See http://asean.org/storage/2016/10/ASEAN-Road-Safety-Strategy_full_24Oct16_rev_clean.pdf.

¹⁵ WHO (2015) Available at: http://www.who.int/violence_injury_prevention/road_safety_status/2015/GSRRS2015_data/en/ [Accessed: 15/09/2017]

As noted above, road traffic mortality rates in ASEAN are far too high. Thailand, as an example, has the highest road traffic mortality rate in the region at 36.2 deaths per 100,000 people (see Figure 8), which also places Thailand among the countries with highest road traffic mortality rates in the world. The WHO has highlighted the gravity of the situation by urging Thailand to cut road death rate to half by 2020¹⁶.

It is important to note that when looking at death rates by road user category, motorcyclists are usually the most affected group. In Malaysia, a country with second highest road traffic mortality rate in the region, 62% of all road fatalities are from motorised 2- or 3-wheelers¹⁷. To illustrate how implementing safety standards and legislation could impact this most critical road user group, various studies have indicated a significant fall in the number of serious or fatal accidents if two-wheelers were equipped with ABS (examples include a 31% fall in the United States, 34% reduction in Sweden and 24% fall in Italy)¹⁸.

Notwithstanding the enormous human impact of these poor road safety statistics within ASEAN, there is also a direct economic impact. A recent study suggests that road injuries take a toll on more than 50 million people of which 12% are hospital admissions bringing about an economic cost of around US\$800 billion or 3.6% of the gross domestic product of the 24 Asian countries studied¹⁹. Thus, improvements in road safety would enable public savings and reinvestment of the financial resources elsewhere.

To help ASEAN reduce the number of road traffic accidents and fatalities in the region we recommend that the AMS:

- Promote the recognition and deployment of UN regulations (UNECE 1958/98) across ASEAN.
- Put in place a road map to harmonise national with international automotive standards (UN Regulations) which would have a significant positive impact on the development of the ASEAN automotive industry and allow local manufacturers to export to all countries who are contracting parties of the UNECE 1958/98 Agreement (including the EU).
- Revise safety regulation and formulation of new equipment obligations for vehicles, based on differentiated cost/benefit analysis tailored to different vehicles and their intended uses.
- Adjust regulations to ensure that the most significant safety technologies are made compulsory: e.g. Electronic Stability Control (ESC) for passenger cars and light commercial vehicles and Anti-Lock Braking System (ABS) for two-wheelers > 125 cc.
- Improve the development and maintenance of road infrastructure and connectivity.
- Provide more support for safety promotion campaigns in conjunction with experienced organisations, e.g. ASEAN NCAP, and the industry.
- Introduce measures to cover Infrastructure Requirements to promote greater use of V2X communications.
- Promote the use of advance driver assistance systems.

ASEAN Integration

The launching of the ASEAN Economic Community (AEC) in 2015 was a landmark in the development of the ASEAN Integration project, with the subsequent AEC Blueprint 2025²⁰ laying out a strategy for the region to further develop regional economic integration.

¹⁶ See <http://www.voanews.com/a/who-presses-asian-countries-to-cut-road-deaths-in-half/3290095.html>

¹⁷ Global Status Report on Road Safety, WHO (2015).

¹⁸ See Improved Safety for Motorcycles, Scooters & Mopeds, OECD, 2014 at <http://www.infocenters.co.il/rsa/multimedia/oecd/PTW-final-oct2014.pdf>

¹⁹ See <http://www.tandfonline.com/doi/full/10.1080/15389588.2015.1066498>.

²⁰ See: <http://www.asean.org/storage/images/2015/November/aec-page/AEC-Blueprint-2025-FINAL.pdf>

The AEC Blueprint 2025 sets out the strategic goals of ASEAN. The recently published, "AEC 2025 Consolidated Strategic Action Plan (CSAP)"²¹ supplements the Blueprint with a more defined framework, and was a document that the EU-ABC broadly welcomed. The CSAP facilitates a more structured tracking and reporting mechanism for the full implementation of the AEC, whilst also putting in place mechanisms for stakeholder feedback and involvement.

The ASEAN governments themselves have identified the automotive industry as a key sector which can drive the industrialisation of the region and lead to the creation of well-paid employment, attracting Foreign Direct Investment (FDI), generating substantial fiscal revenue for governments, bringing about development of technical and cutting-edge training, and fostering research and development. The automotive value chain involves and contributes to many other industries including mining and manufacturing of raw materials, finance and insurance services, transportation, aftermarket, fuel supply, warehousing or legal services.

MRA on Type Approval & Harmonisation of Regulatory Regimes

An essential element of the AEC is to make the region a single production base. To achieve this, it is important that differences in standards and regulations between the Member States in the region are removed, or at least the different countries agree to accept the standards of other their fellow ASEAN members when it comes to the importation of products. This is a key issue in the automotive industry, with its regional supply chains supporting vehicle production and assembly across Southeast Asia. However, at the moment, there are differing standards and testing regimes in place that add cost and burden to suppliers and the OEMs.

Work is being done in the region to harmonise standards or to put in place Mutual Recognition Agreements (MRAs), mainly under the auspices of the Automotive Product Working Group under the ACCSQ. The harmonisation of automotive product standards is an essential basis for a single manufacturing base as envisioned under the AEC. All ASEAN Members states should continuously engage in further development of the MRA on Type Approval, including its second phase encompassing 32 standards should avoid complexity and inefficiency in the implementation of the ASEAN MRA. It is also important that the ASEAN MRA on Type Approval should not be limited to automotive products (components/systems) manufactured within ASEAN only, given the extended nature of supply chains in modern day manufacturing. In this respect, moving to accept the widely recognised EU-type approval and E-mark as proof of UN compliance would be beneficial to all concerned.

There are a number of measures that the AMS could take in the relative short term to speed up the process of harmonisation of standards in the region. These include:

- All AMS to review their national legislation in order to align with the regional initiatives on market integration.
- AMS should conduct regular simulation exercises to clarify different interpretations and thereby ensure smooth implementation for the future.
- AMS to implement already identified UN Regulations whilst finalising the ones still to be harmonised.
- All AMS to adopt UN Vehicle classification either as a part of the framework/agreement or as a guideline.
- Formulation of long-term integration plan (based on 1958 UN ECE Agreement) - endorsement by ACCSQ and SEOM.
- Establishment of a schedule for implementation by AMS utilising the inherent flexibility of the 1958 UNECE agreement.
- Development of ASEAN Agreement on Harmonisation of Automotive Regulatory Regimes, which would supplement the MRAs.

²¹ See: <http://asean.org/aec-2025-consolidated-strategic-action-plan/>

- Increased participation of private sector groups (including EU-ABC Automotive Group) in APWG meetings under ACCSQ.

Looking longer term, we also suggest that:

- All AMS agree to become contracting parties to the 1958 UNECE Agreement (scheduled to be agreed and adequate time for CLMV).
- All AMS agree to adopt UN vehicle classification system in national regulation.
- All AMS agree to adopt the type approval approach for motor vehicle regulation (progressing from recognition certification of components to recognition of type approvals)
- All AMS legislation to advance adoption of UN regulations in national legislation.
- AMS can go beyond the MRA and harmonisation of technical requirements and to look into harmonising the regulations.
- ASEAN, through APWG, to establish targets for harmonisation through adoption of UN regulations.
- AMS to agree on and implement identical testing procedures using the same methodologies, standards and application regulations.
- Increased and systematic consultation with Industry on technological standards to ensure they are achievable and efficient.

Customs Processes

The EU-ABC has been very active on customs and trade facilitation issues in the region, including having regular engagement with the ASEAN Customs Directors-General and other relevant ASEAN bodies. In April, the EU-ABC published its latest Customs and Trade Facilitation advocacy paper²² which set out a number of recommendations aimed at lower transaction costs and speeding up trade within the region. Essentially, the EU-ABC sees a need to reduce the bureaucratic burden of customs through such measures as self-certification for Certificates of Origin, and increased automation (through the NSWs and ASW).

Non-Tariff Barriers to Trade

It is undeniable that ASEAN has made significant progress in the removal of tariffs to intra-ASEAN movements of goods. However, as several studies have shown, as tariffs have reduced across the region, the number of Non-Tariff Measures has increased linearly²³. Whilst not all NTMs are Non-Tariff Barriers (with some NTMs clearly being for public health or safety reasons), there is a general view in the industry that the number of NTBs has also increased significantly.

As part of the AEC process, ASEAN is committed to removing all NTBs across the region and a methodology for doing so has been set out in the Master Plan on ASEAN Connectivity 2025²⁴. The EU-ABC fully supports this process. A simple and transparent trade system without obstructions distorting the market not only cuts the costs for businesses, but also creates growth, jobs and affluence in the long term, and therefore should be a primary aim. With this in mind, we recommend that:

- ASEAN adopt the automotive sector as an early initiative for identifying and scheduling the removal of NTBs.
- ASEAN establish a dedicated working group which would work with industry groups to identify the NTBs affecting the sector, utilising the ASEAN Trade Repository and National Trade Repositories as a starting point.

²² See <https://www.eu-asean.eu/publications>

²³ See http://www.eria.org/publications/key_reports/FY2015/No.01.html "Non Tariff Measures in ASEAN"

²⁴ See <http://asean.org/storage/2016/09/Master-Plan-on-ASEAN-Connectivity-20251.pdf>

- A programme for the removal of NTBs in line with the concepts set out in the Master Plan on ASEAN Connectivity 2025 (MPAC2025) be developed.
- Based on the work under recommendations above, a firm timetable for ASEAN Member States to remove the identified NTBs affecting the automotive sector, with the target of removing them by no later than the end of 2021 be put in place.

Counterfeiting/Illicit Trade in Auto Parts

A significant concern in the ASEAN region is the development of the illicit trade in counterfeit automotive parts and components. The sale of such parts has serious consequences for the safety of consumers as they will not be manufactured to the same exacting standards of safety and quality as the genuine article. It is essential, therefore, that enforcement agencies across the region work closely with the industry to identify instances of the sale or manufacturer of counterfeit goods and to make sure that appropriate enforcement action is taken. The members of the EU-ABC would welcome close co-operation with customs, law enforcement and transport inspection officials across ASEAN to help with the identification of counterfeit products. Ensuring appropriate consumer protection and intellectual property protection laws is also of importance. The EU-ABC will be developing a separate paper on this topic in the coming months.

Parallel imports are also of concern to the industry, as they affect the ability of manufacturers to track and trace products (a key issue in the event of the need for a product recall), and also create a means by which importers can seek to avoid duties and taxes, thus potentially reducing government revenues.

In order to protect intellectual property rights, IPR Action Plan of 2016-20²⁵ was formed adopting 5 strategic goals of IPR Action Plan of 2011-15, one of which is developing a broad IP mechanism among ASEAN Member States including regional platforms such as online filing systems for trademarks. IPR harmonisation is expected to progress at slow pace as national policies on IP will have to be aligned with regional policies. The slow progress in IP arena opens space for discussion whether other forms of oversight with more immediate effect such as anti-smuggling rules is more appropriate tool to combat counterfeiting and illicit trade in Auto parts as well as providing basic framework for monitoring parallel imports across the region.

It is important that the authorities and industry work closer together to protect interests and rights of consumers. Enhanced co-operation in the areas of product identification, and enforcement of IP rights should be implemented to ensure that illicit trade and IP infringement do not have an adverse impact on public safety and the revenues of manufacturers and governments.

Automotive Policies

NAPs - Need to focus on high tech and innovation; removal of contradictory policies

Apart from the natural market growth, government policy is a major driver of the automotive market in the region. Automotive policies can significantly impact demand by directly affecting consumer choices. However, it has been the case that automotive policies across the region have been focussed on domestic markets. The EU-ABC believes that automotive policies need to be aligned with overall ASEAN aims and objectives as set out in the AEC Blueprint 2025 to enable the competitive and environmentally-friendly development of the respective automotive ASEAN markets. Among the important topics that need to be considered in relation to automotive policies are exports, the ASEAN internal market, safety and green car initiatives. A key element here is ensuring that vehicles manufactured in ASEAN are of a sufficiently high technical quality to meet the expectations and legal

²⁵ See <http://asean.org/storage/2012/05/ASAPCP-UPLOADING-11Nov16-Final.pdf>.

requirements in more developed potential export markets - something that would also improve standards across ASEAN.

Industrial schemes which promote innovation for optimum production conditions are to be welcomed, so long as such schemes are transparent and in conformity with WTO requirements, and allow for long-term planning security. In this respect, we recommend that:

- AMS establish regular private-public sector dialogue in the development and revision of NAPs early on.
- Industry policy concepts should not discriminate against imports and foreign investors, and should be in compliance with WTO rules.

Electric and autonomous mobility policies in ASEAN

The development of Autonomous vehicle technology has the scope to change the perception of what a vehicle is for. It will no longer be seen as a means of getting from A to B, but will instead become a living space for entertainment, work or with increased individuality²⁶. With the arrival of highly autonomous or “driverless” vehicles on the market, automotive manufacturers, collaborating with leading technology providers, will have the opportunity to become market leaders with regard to technology introduction and providing new opportunities for automakers, auto part suppliers or repair service providers.

Autonomous buses are already a reality in Europe with Bestmile and Citimobil2 in the lead. Citimobil2 has already transported 60,000 passengers in automatic shuttles. Autonomous cars are still in development, however there are already several early solutions on the market with Ford, GM, Audi, BMW, Tesla, Nissan, and Mercedes-Benz that promise to deliver self-driving cars in the next five years or so²⁷. Within ASEAN, Singapore is at the forefront of testing autonomous vehicles, with a number of projects under evaluation within the country. However, the future of mobility does not lie in autonomous vehicles themselves, but in what they can offer once they are managed and operated together.

Autonomous vehicles offer the opportunity to radically alter driving, allowing for more efficient use of limited road space through using sensors and technology to anticipate potential risks, ease traffic flows by automating junctions, automatically adjusting speeds to both ensure better safety and improve traffic flows etc. Further, it will radically change urban supply chains in the near future. The changes that could be brought about by these developments also have the potential to radically alter urban landscapes, allowing increased pedestrian areas as the amount of road space required would be reduced.

Similarly, advances in battery technology have made all electric cars a viable alternative to those powered by conventional combustion engines. Again, several manufacturers are actively working on electric cars for mass production, or logistics services, and some countries (e.g. France, the UK) have already announced intentions to ban the sale of new conventionally powered vehicles in the not too distant future.

Other parts of the world are making great advances with both electric and autonomous driving vehicles, and whilst most of ASEAN might be a long way behind other regions, such as Europe, plans should be put in place now for the future. There needs to be a political will to promote not only electric but also autonomous drive systems - with autonomous and connected vehicles having the

²⁶ See <http://ww2.frost.com/news/press-releases/collaborations-technology-providers-offer-european-automotive-oems-new-growth-opportunities>.

²⁷ For more information on autonomous shuttles in public transportation see <http://www.roadandtrack.com/car-culture/travel/a31012/future-of-public-transportation/>. For more information on autonomous vehicles see <https://www.wired.com/2017/01/self-driving-cars-approach-auto-industry-races-rebuild/>.

potential to make transport more efficient, sustainable and safe. Such moves must find their expression in national automotive policies and initiatives.

Levers to facilitate necessary framework conditions include a supportive regulatory framework, as well as compatible European and international standards and available infrastructure. The legal framework needs to be aligned with the progress of technology in order to avoid an imbalance between what can be achieved by technology and what is permitted by law. xEV is the practical condition for connected and autonomous drive. Independent of all environmental considerations it will therefore serve as the pre-condition for further strategic development of individual mobility which ultimately has to be part of industrial policy across ASEAN and its highly conglomerated Megacities.

Additionally, a look at the international scene clearly shows that financial inducements have also a particularly strong effect on the introduction of new technology. The transfer of technology and know-how for the production of xEVs in the markets are very high and require follow-up investments and cost for qualification of personnel, also in the aftersales organization. In order to facilitate faster penetration of markets with xEV, production incentives are necessary (e.g. tax holiday, customs free import of machinery, multiple deductibility of training cost) to attract FDI in the sector. In order to facilitate market demand for xEV it is also important to find sufficient early adopters of new technologies. Therefore, direct purchase incentives (or switching incentives from ICE to xEV) should be considered. Availability of public charging networks is a prerequisite to move from PHEV to BEV, it will also support to build a critical mass of intrinsic buying decisions and will support to gradually phase out direct purchase incentives after some years again. The investment into charging networks will also need incentives. Where applicable the regulatory framework (e.g. energy supply monopolies) have to be considered additionally. xEV have a number of genuine standardization requirements (e.g. plug-system etc) which need to be addressed in order to reduce investments into charging networks and xEV-production. This is also vital for cross-border traveling where applicable.

To help meet some of the future challenges, and to ensure that the advantages of electric cars and autonomous driving can be achieved in the region, we recommend:

- Enhancing dialogue between private and public sector to formulate and implement necessary and ideally uniform international framework conditions for the ongoing development and successful introduction of this technology.
- Government support of market uptake of electrified vehicles necessary.
- Incorporate learnings from benchmark countries in local policies.
- The availability of sufficient charging infrastructure (a key to success).
- National or/and cross ASEAN programmes to initiate built up of networks on the basis of international standards (fast charging with Combined Charging System CCS).
- Co-operation with Grid companies requested with appropriate billing systems developed.
- Set up cross sector working group to discuss the role of digitalisation as enabler of Autonomous Driving and a driver of future mobility.

For the longer-term, the EU-ABC recommends:

- Coverage of infrastructure to be developed from pilot regions to market wide networks.
- Establishment of an intelligent infrastructure to support vehicle-to-x (V2X) communication.
- Ensure safe access to vehicle data to avoid putting vehicle occupants, their data and the safety of the vehicle at risk.²⁸

²⁸ The Extended Vehicle concept, which is based on an OEM-specific backend server with a corresponding firewall, best meets the requirements for protecting data and vehicles because it prevents uncontrolled and unlimited access to a vehicle's data and systems.

- A harmonised legal framework that applies across borders is a requirement for the ongoing development and successful introduction of this technology.

Trade Issues

FTAs between the EU and ASEAN

ASEAN remains a beacon for opening trade through increased free trade activity such as the RCEP negotiations and discussions that several ASEAN Member States are having with the EU on FTAs. The global setting gives ASEAN a historical opportunity to increase significantly its geo-political relevance, providing a link between EU, Asia and China and gain a stronger foothold among the world trade regions.

The recent announcement²⁹ from the European Commission and ASEAN that they are to put in place a framework for negotiations on a region-to-region FTA between the EU and ASEAN is welcomed by the EU-ASEAN Business Council. A FTA between the World's largest and sixth largest economies will bring undoubted benefits to consumers and companies in both regions. In the meantime, the EU is presently negotiating FTAs with the Philippines and Indonesia, with FTAs with Singapore and Vietnam already concluded though not yet ratified or implemented. The EU-ABC encourages the EU to move faster with existing FTA negotiations with the region and to advance work on a region-to-region deal. In the EU-ABC's recent 2017 EU-ASEAN Business Sentiment Survey³⁰ 94% of respondents said that the EU should accelerate the negotiations with ASEAN Member States, and 88% said that the EU should pursue a region-to-region deal.

It is, unfortunately, a fact that European operators in the automotive industry are operating at significant disadvantage to their counterparts from Japan, Korea and elsewhere when it comes to exporting products from their home base to ASEAN.

The Role of Tariffs - Distorting the market

The use of customs regimes, particularly in the form of tariffs and import taxes, to protect local industry from international competitors is not unusual. This is the case with the automotive sector in ASEAN. Figures 9 and 10 below highlight the level of duties and taxes imposed on the imports of vehicles and components from the EU into four markets in ASEAN. Various import duties are applied depending on the stage of the imported vehicle i.e. completely built unit (CBU), completely knocked down (CKD) or individual parts, bodies, tyres etc. The importation of CBUs into any of these markets is economically unfeasible. A 30% import duty in Malaysia potentially translates into a price increase of 30% to the end consumer. Due to the nature of their customer base, mass brands will be more affected by the import duties than the premium vehicle brands.

At the same time, it ensures that qualified third parties can be granted access to specific data subject under certain conditions (such as the customer's consent).

²⁹ https://eeas.europa.eu/sites/eeas/files/joint_eu-asean_statement_from_todays_trade_and_economic_ministers_meeting_0.pdf

³⁰ See: <https://www.eu-asean.eu/publications>

Figure 9: ASEAN MFN Import Tariffs Commercial Vehicles (%)³¹

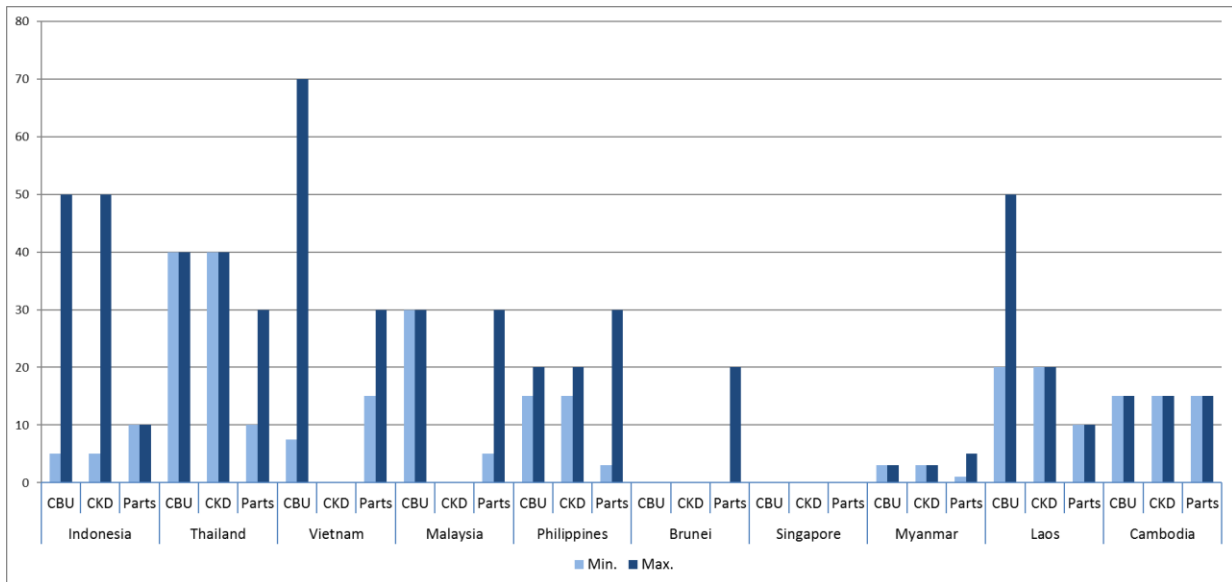
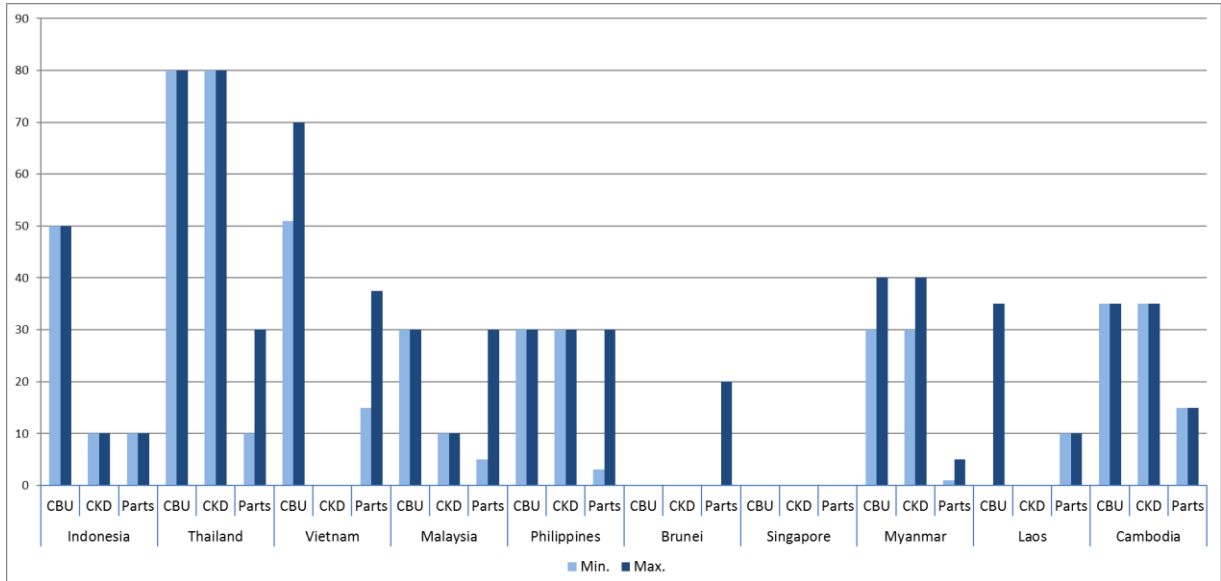


Figure 10: ASEAN MFN Import Tariffs Passenger Vehicles (%)³²



³¹ European Commission Market Access Database (MADB) [<http://madb.europa.eu/madb/indexPubli.htm>]. For Vietnam, No CKD tariff, but treated as “part by part”.

³² European Commission Market Access Database (MADB) [<http://madb.europa.eu/madb/indexPubli.htm>]. For Vietnam, No CKD tariff, but treated as “part by part”.

RCEP and TPP11

The EU-ABC is watching with interest progress on the Regional Comprehensive Economic Partnership (a mega-trade deal that involves ASEAN and its existing FTA partners, China, Australia/New Zealand, Japan, Korea and India). Whilst there is still some way to go before this trade deal, or indeed a potentially revived Trans-Pacific Partnership without the United States, is finalised, the EU-ABC believes that it would be essential for the RCEP (and a possible TPP11) to include an automotive chapter. It is also important that there is more transparency in the negotiation of such deals. Furthermore, they should include provision to protect foreign direct investment.

Education & Labour Issues

Free movement of skilled labour and vocational training

As growth of the automotive industry in ASEAN is expected to continue, an increased shortage in skilled labour will be experienced across the region, particularly in the highly-skilled and technology intensive manufacturing and vehicle service sectors. Staff retention is an issue in countries where workers are educated to higher level and therefore more susceptible to leaving to another ASEAN country to achieve better pay and working conditions. It becomes apparent that the most effective long-term solution to solve the lack of highly qualified labour is helping local workers to scale up their skill levels through appropriate vocational training. But equally, employers would also like to have the ability to move staff around the region, both to plug short-term skills shortages and to help with staff training and development. It is, therefore, recommended:

- The establishment express visa system for internal intra-ASEAN staff movements for those on management development programmes or those identified to help staff shortages.
- Acceleration of the ASEAN MRA programme for more areas of skilled labour that impact on the automotive sector.
- Development of private/public sector vocational training programmes.
- Increased national efforts to incorporate industrial training schemes as part of national curriculums

European Automotive Companies & Their Presence in ASEAN

The ASEAN automotive market is dominated by Japanese brands, accounting for over 80 percent of the market share³³. The rest of the market comprises of American, Korean and European brands. The presence of Chinese and Indian OEMs is, for the moment, marginal.

Market domination by Japanese OEM brands has been the result of many years of sustained presence leading to high brand awareness, a comprehensive portfolio, extensive dealer networks and positive traction with various stakeholders by their manufacturers. It has also been supported by significant Japanese involvement in the overall economic development of the region. ASEAN has been a natural extension of the Japanese manufacturing footprint outside Japan from the perspective of sourcing, manufacturing and sales. New OEMs entering the market would, therefore, need to develop a differentiated and focused value proposition in order to target specific consumer segments.

Key challenges for the European automotive sector which have prevented them from gaining a larger foothold in market in South East Asia include:

³³ IHS Automotive, The Malaysian Automotive Association (MAA), GAIKINDO, FTI (Federation of Thai Industries), The Malaysian Automotive Association (MAA), various media reports.

- High import taxes and excise duties;
- Numerous non-tariff barriers to trade;
- Limited economies of scale in local production and purchasing; and,
- Non-harmonisation of local standards with international best practice.
- Government incentive schemes that have been mainly geared towards entry-level segments

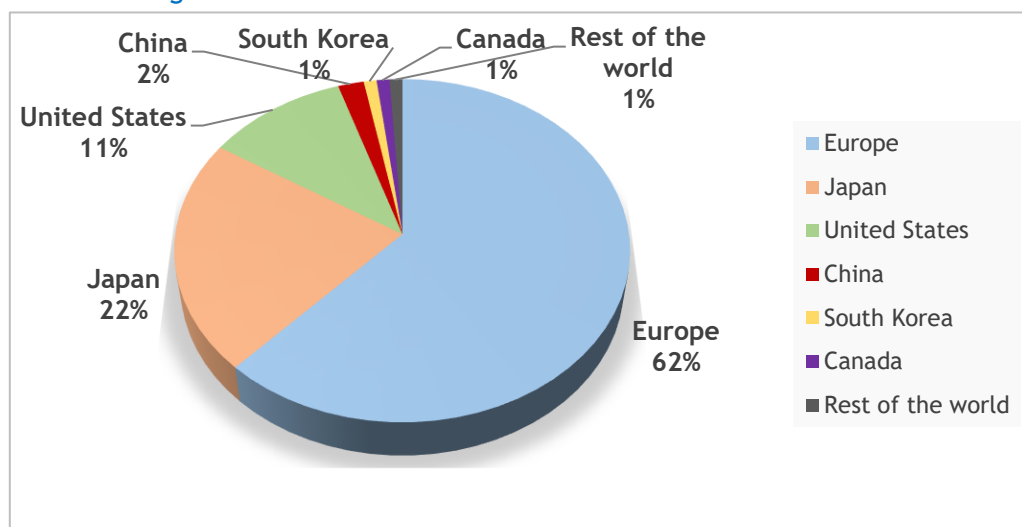
European OEMs (e.g. BMW and Mercedes-Benz) are also well positioned throughout ASEAN - for example in the segment of premium passenger cars, commercial vehicles and motorbikes. European OEMs with their international brands, products and their suppliers do also have production and assembly bases in the region. Those plants tend to be centred in Malaysia, Indonesia and Thailand, reflecting the maturity, skills centres and domestic sales potential that each of those countries have.

In the parts and components markets, European players have a well-established footprint with companies such as Bosch, Schaeffler and Continental playing a major role in both the OEM supply and the independent aftermarket. European component makers have not only invested in a strong manufacturing base across ASEAN, they have also established R&D centres, particularly in Thailand and Malaysia. Further investments in Indonesia are also expected. Increasingly, European suppliers are also looking at ASEAN as a global production hub - exporting parts and components from ASEAN to Europe's major automotive factories. Changes within ASEAN, particularly in the area of harmonising standards to accepted international norms, would greatly enhance the attractiveness of the region for the component manufacturers as it would help to remove intra-ASEAN barriers and ensure the industry in the region is manufacturing to standards that are easily exportable globally.

European Automotive Industry - A source of innovation

The European automotive industry is the leading innovator in the automotive industry, pursuing the concepts of sustainable low carbon propulsion, integrated vehicle safety, vehicle connectivity and more. Around 62% of the patents granted to the automotive sector in 2015 have been provided to European companies (see Figure 12 below). Expenditure in R&D by European companies (both OEM's and parts suppliers) amounts to €44.7 billion, representing approximately about 5% of its total industry turnover³⁴. This is significantly more than the US or Japanese counterparts invested into innovation in 2014 (see figure 13 below).

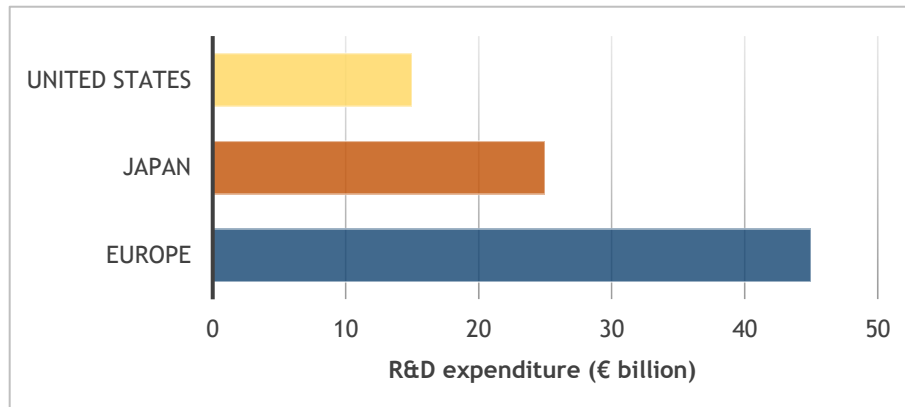
Figure 12: Patents Granted in the Automotive Sector 2015³⁵



³⁴ For more information on see <http://www.acea.be/industry-topics/tag/category/research-and-innovation>.

³⁵ As Europe are also considered EPO countries. Source: European Patent Office (EPO), ACEA.

Figure 13: Expenditure on R&D in the Automotive Sector 2014¹



Major automobile manufacturers in Europe also approach innovation by collaborating on efforts in the R&D sector under the European Council for Automotive R&D (EUCAR), with the mission to strengthen the competitiveness of the manufacturers through strategic collaborative research and innovation. There are also efforts to establish R&D initiatives in ASEAN. An example of this is the BMW Future Mobility Research Lab co-op with Nanyang Technological University in Singapore. Bosch also has its R&D headquarters for Asia-Pacific in Singapore, and is focusing, amongst other things, on automotive solutions in the area of e-mobility and autonomous driving.

One of the primary concerns for the European automotive industry is minimising its environmental footprint and sustainable mobility, through decreasing the CO₂ emissions of automobiles, and also minimising its environmental footprint in the production process. CO₂ emissions experienced a significant fall in recent years, where the overall EU average emissions level of new passenger cars in 2015 was 119.6 grams of CO₂ per kilometre, a fall of 3.1% over the previous year³⁶.

Despite the constant introduction of new and increasingly complex technologies (with a focus on improving vehicle safety, fuel efficiency, vehicle durability etc.) the European industry has been very successful at reducing the environmental impact of vehicle production in the last decade. Recent research shows that Volatile organic compounds (VOC), organic solvents mainly emitted from paint shops, dropped between 2006 and 2015. In the same timeframe, the EU industry was successful in reducing energy consumption by 14.6%, water used by 35.9% and CO₂ emissions from production by 28%, while the production levels remained relatively flat.

Innovation and high tech automotive solutions are, in terms of impact, strongly interlinked with reducing the environmental footprint. According to current research, new urban mobility models could lead to huge sustainability benefits with consequential potential emission savings. Combinations of ride-on-demand business models, smart vehicles and smart roads and cities could lead to reductions in global car output and carbon dioxide (CO₂) levels by 56 megatons CO₂ per year in 2025, whereas car output could be reduced to 360 billion kilometres a year³⁷. Furthermore, on the production side, by using lightweight materials, expanding the use of remanufactured parts and better integrated supply chains could lead to reduction of 89 megatons of CO₂ levels in 2025³⁸. Examples of current trends in innovation and high technology in European automotive industry are concentrated around automated vehicles, that have high connectivity, are electrified and may find their place in sharing economy.

³⁶ ACEA: The Automobile Industry Pocket Guide 2016-2017, 2016.

³⁷ BT, Frost & Sullivan, 2016.

³⁸ Ibid.

Figure 11: Locations of Key European OEM's and European Suppliers in ASEAN



About the EU-ASEAN Business Council

The EU-ASEAN Business Council (EU-ABC) is the primary voice for European business within the ASEAN region. It is recognised by the European Commission and the ASEAN Secretariat. Independent of both bodies, the Council has been established to help promote the interests of European businesses operating within ASEAN and to advocate for changes in policies and regulations which would help promote trade and investment between Europe and the ASEAN region.

As such, the Council works on a sectorial and cross-industry basis to help improve the investment and trading conditions for European businesses in the ASEAN region through influencing policy and decision makers throughout the region and in the EU, as well as acting as a platform for the exchange of information and ideas amongst its members and regional players within the ASEAN region.

The EU-ABC conducts its activities through a series of advocacy groups focused on particular industry sectors and cross-industry issues. These groups, usually chaired by a multi-national corporation, draw on the views of the entire membership of the EU-ABC as well as the relevant committees from our European Chamber of Commerce membership, allowing the EU-ABC to reflect the views and concerns of European business in general. Groups cover, amongst other areas, Insurance, Automotive, Agri-Food & FMCG, IPR & Illicit Trade, Market Access & Non-Tariff Barriers to Trade, and Financial Integration.

Executive Board

The EU-ABC is overseen by an elected Executive Board consisting of corporate leaders representing a range of important industry sectors and representatives of the European Chambers of Commerce in South East Asia.

Membership

The EU-ABC's membership consists of large European Multi-National Corporations and the eight European Chambers of Commerce from around Southeast Asia. As such, the EU-ABC represents a diverse range of European industries cutting across almost every commercial sphere from car manufacturing through to financial services and including Fast Moving Consumer Goods and high-end electronics and communications. Our members all have a vested interest in enhancing trade, commerce and investment between Europe and ASEAN.

To find out more about the benefits of Membership and how to join the EU-ASEAN Business Council please either visit www.eu-asean.eu or write to info@eu-asean.eu.

Our Members



Annexes

List of Working Group Members:

BASF Corporation
 BMW Group
 Daimler AG
 Michelin Group
 Robert Bosch Southeast Asia
 Schaeffler Group
 EU-Malaysia Chamber of Commerce & Industry
 European Association for Business and Commerce (Thailand)
 European Chamber of Commerce and Industry in the Lao PDR
 European Chamber of Commerce in Cambodia
 European Chamber of Commerce Indonesia
 European Chamber of Commerce in Myanmar
 European Chamber of Commerce in Singapore
 European Chamber of Commerce in the Philippines
 European Chamber of Commerce in Vietnam

Non-member Contributor to this Paper:

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List of Acronyms

AEC - ASEAN Economic Community
 ASEAN - Association of South East Asian Nations
 ASW - ASEAN Single Window
 ATIGA - ASEAN Trade in Goods Agreement
 BEV - Battery Electric Vehicle
 CLMV - Cambodia, Laos, Myanmar, Vietnam
 EEV - Energy Efficient Vehicle
 EU - European Union
 EV - Electric Vehicle
 FDI - Foreign Direct Investment
 FTA - Free Trade Agreement
 GDP - Gross Domestic Product
 LCE - Low Carbon Emission
 LCGC - Low Cost Green Car
 MRA - Mutual Recognition of Agreements
 NAP - National Automotive Policy
 NSW - National Single Window
 NTB - Non-Tariff Barriers
 OEM - Original Equipment Manufacturer
 PHSV - Plug In Hybrid Electric Vehicle
 RCEP - Regional Comprehensive Economic Partnership
 TBT - Technical Barriers to Trade
 TPP - Trans Pacific Partnership
 UNECE - United Nations Economic Commission for Europe
 xEV - Plug In Electric Vehicle

