

EXECUTIVE SUMMARY

Introduction

On 26 March 2016, the Board of Commissioners of the Malaysian Aviation Commission (MAVCOM, or the Commission), decided that the Commission, as the economic regulator for the Malaysian civil aviation industry, would propose an Economic Master Plan for the Malaysian Civil Aviation Sector (for ease of reference, termed Master Plan or Plan) to the Ministry of Transport, Malaysia (MOT), to provide long-term strategic direction for the sector.

This is in line with section 17 of the Malaysian Aviation Commission Act 2015 [Act 771], which states that one of the functions of the Executive Chairman of the Commission (and by extension, the Commission) is to “advise the Minister (of Transport) on policies and plans on all matters relating to civil aviation and to develop strategies in line with such policies and plans”.

MAVCOM had completed the Master Plan and presented it to its Board of Commissioners on 6 December 2018. The Board had also decided that MAVCOM would publish the Master Plan following a presentation of the Plan to the Minister of Transport. However, to-date, the Minister has yet to agree to be presented with the Master Plan. It was therefore decided that MAVCOM would publish the Master Plan, presented as a set of proposals to the Ministry of Transport.

The Master Plan therefore constitutes a proposal from the Commission to the MOT.

As an economic master plan, this proposal covers economic matters related to the sector but does not directly address technical, safety, and environmental issues. However, it highlights interlinkages between these areas and the Master Plan’s recommendations, if any.

The Master Plan will cover the following sub-sectors, which are aligned with the areas of responsibility for MAVCOM defined in Act 771:

- Passenger and cargo air transport, both scheduled or unscheduled (charter)
- Aerodrome (airport) operations
- Ground-handling services, including:
 - Passenger handling
 - Refuelling
 - Catering
 - Line maintenance, comprising:
 - Routine services performed before flights
 - Non-routine services requested by airport users
 - Provision and administration of spare parts

As such, the Master Plan does not encompass sub-sectors considered ‘upstream’ such as aircraft designs, engineering and manufacturing, leasing, and maintenance, repair and overhaul (MRO) services. This is illustrated in Figure 1.

Figure 1: Value Chain of the Aviation Industry and Sectoral Coverage of the Master Plan



Source: MAVCOM

While the Commission notes that the air navigation services (ANS) sub-sector is an integral part of the civil aviation sector, it is under the purview of the Civil Aviation Authority of Malaysia (CAAM), and therefore outside the scope of this Master Plan. The Master Plan proposes that ANSP-related issues are subsumed in a Technical and Safety Master Plan for the Malaysian Civil Aviation Sector.

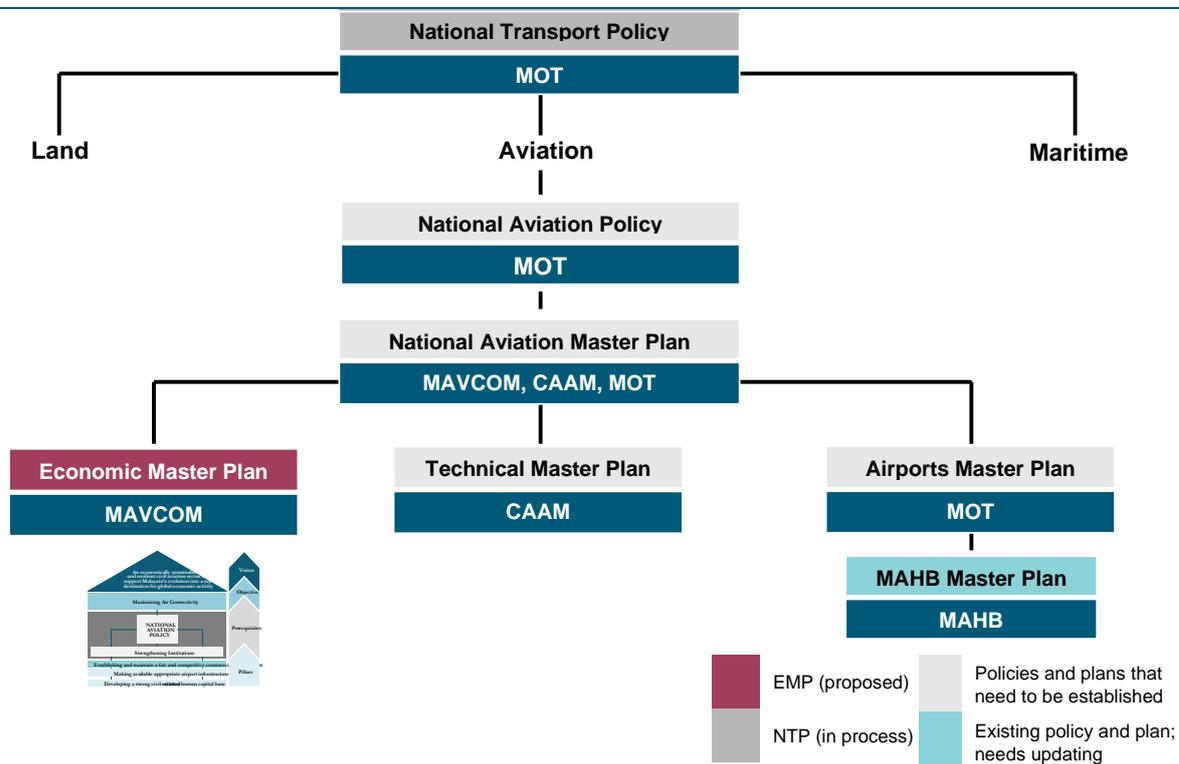
The Master Plan will also need to be aligned with existing policies, plans, and international commitments related to the economic development of the Malaysian civil aviation sector. These include, but are not limited to, the following:

- The National Transport Policy (NTP)¹
- The 11th Malaysia Plan (11MP)
- Air Services Agreements (ASAs) and other international commitments

¹ The NTP has since been completed and launched on 17 October 2019. The Policy document is available at <https://www.pmo.gov.my/2019/10/national-transport-policy-2019-2030/>

The Master Plan should be part of a set of policies and plans to guide the development of the Malaysian civil aviation sector, as illustrated in Figure 2.

Figure 2: Policies and Plans That Should Guide the Development of the Malaysian Civil Aviation Sector



Source: MAVCOM

It is envisaged that the Master Plan will be implemented in two phases:

- **Phase 1 (2019 – 2020): Foundation-setting**
 The implementation of the Master Plan will require several enabling measures to be undertaken. These include:
 - The establishment of required policies as well as attendant guidance documents. These include:
 - National Aviation Policy
 - National Airports Strategic Plan
 - Approval and disbursement of funding
- **Phase 2 (2021 – 2030): Implementation**
 To coincide with the implementation period of the NTP, and the 12th and 13th Malaysia Plans, the implementation of the Master Plan will be completed over three periods:
 - Short : completed by 2022
 - Medium : completed by 2025
 - Long : completed by 2030

The development of the Master Plan was primarily based on internal research and analyses related to the economic development of the Malaysian civil aviation sector. The areas researched included:

- Analysis of Malaysia's air connectivity, for passenger and cargo
- Review of Malaysia's airports industry structure
- Assessment of ownership issues relating to Malaysia's civil aviation sector
- Malaysia's Air Services Agreements (ASAs)

Details of the methodology and key findings of the above are included in background papers, some of which had been published by MAVCOM. These papers are:

- **Technical Paper: Aviation Sector Multiplier (August 2017)**
MAVCOM's estimate of the economic contribution and output multiplier for the Malaysian aviation sector and issues surrounding the use of multiplier estimations
- **Technical Paper: Defining and Measuring Air Connectivity (May 2018)**
MAVCOM's calculations of the Air Connectivity Index (ACI) and the Hub Connectivity Index, as well as, factors influencing air connectivity
- **Technical Paper: Airfares for Domestic Flights During Peak Seasons (August 2018)**
Price multipliers for airfares due to peak seasons and the effects of price regulation and deregulation
- **Technical Paper: Air Service Agreements – Air Traffic Rights and Airline Nationality Requirement (November 2018)**
The different approaches adopted in ASAs and the need for Malaysia to ensure policies are up to date with domestic economic objectives and international and regional developments
- **Position Paper: Sequencing Liberalisation for the Malaysian Aviation Services Sector (July 2019)**
Malaysia's historical experience of liberalisation experienced by the aviation sector and recommendations to secure its benefits, including by promoting good governance
- **Position Paper: Malaysia's Airports Industry Structure (December 2019)**
The industry structure of Malaysia's airports industry, issues and challenges arising from this structure and recommendations to improve the industry's competitiveness

The baseline findings and recommendations were then presented and discussed for consultation in four workshops with external stakeholders:

- Introductory Workshop : 28 November 2017
- Inception Workshop : 15 March 2018
- Interim Workshop : 28 June 2018
- Final Workshop : 12 – 13 November 2018

Please refer to Appendix 1 and Appendix 2 for the list of participants and meeting notes for the workshops, respectively.

Dr Harry Bush, board member for NATS Holdings Ltd. and former Group Director for Economic Regulation at the United Kingdom Civil Aviation Authority, and Dr Volodymyr Bilotkach, Associate Professor at the Singapore Institute of Technology, were engaged by the Commission as external peer reviewers for the Master Plan. The Commission gratefully acknowledges their contributions.

All information in the Master Plan were the latest available as at December 2018, when the Plan was tabled to MAVCOM's Board of Commissioners.

Master Plan Framework

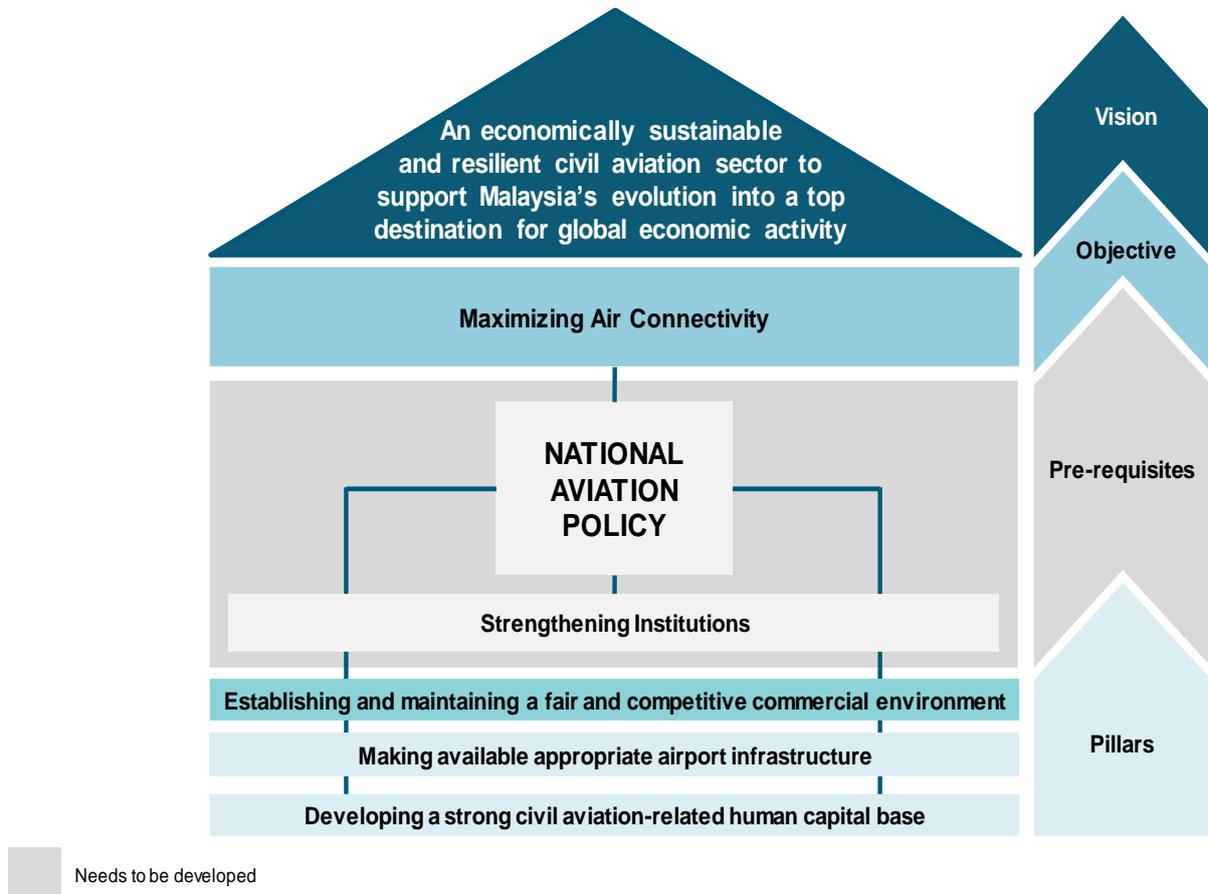
The Master Plan Framework is based on developing a liberalized and competitive sector, based on the following observations:

- The two main constraints for the sector, which prevent it from maximizing its contribution to Malaysia's economic growth, are low connectivity and sub-optimal airports
- Air connectivity and the strength of economic activities—particularly tourism and international trade—are mutually reinforcing. While air connectivity is strongly linked to international trade, especially in terms of a country's ability to participate in global value chains (GVCs), it is also very dependent on the strength of a country's economic base, as airlines and cargo operators choose to operate in countries where there is high demand for their services
- Meanwhile, lessons from airports around the world indicate that their financial performance and service delivery are correlated with their ability to operate on purely commercial terms, with minimal to no government intervention, regardless of their ownership structure. Indeed, this applies to all segments of the civil aviation sector, including airlines and ground-handling services
- Pursuing growth objectives for the sector should not be at the expense of consumer welfare, which needs to be safeguarded in terms of consumer protection measures, as well as, initiatives to ensure high standards of service delivery

Given its dynamism, the most optimal strategy for the development of Malaysia's civil aviation sector is one which safeguards the continuing commercial operation of the airlines sector, while also ensuring that the country's airports are sufficiently competitive to attract as many airlines and routes as possible. This needs to be achieved without sacrificing consumer welfare, service levels, and financial resilience. The overriding strategic objective for the sector, therefore, is to maximize Malaysia's air connectivity by attracting as many airlines as possible to operate out of Malaysia, coordinated with efforts to strengthen the country's tourism base and trade. This objective is achieved through increasing market liberalization for all aviation sub-sectors, and hence, their competitiveness.

The Master Plan Framework is illustrated in Figure 3.

Figure 3: The Master Plan Framework



Source: MAVCOM

Vision and Objective

The overall vision for the Master Plan is the development of an economically sustainable and resilient civil aviation sector that can significantly support Malaysia's evolution into a top destination for global economic activity by 2030, in line with the NTP's Policy Thrust 5 ("Expand global footprint and promote internationalization of transport services"). Given the strong interlinkage between the contribution of tourism and trade to economic growth and air connectivity, the main conduit between the civil aviation sector and its role in Malaysia's economic development is through air connectivity.

While it is a necessary condition, a high-performing civil aviation sector is only one of the enablers for Malaysia to achieve its vision of becoming a developed economy, by transforming itself into a top destination for global economic activity. The aviation sector needs to be part of an efficient, effective, and sustainable multi-modal transportation and telecommunications network, which in turn are instrumental in Malaysia's trajectory towards becoming a top destination for global tourism and trade. There is also a virtuous cycle at play—the growth of the aviation sector hinges on the performance of the tourism and trade sectors, from which the sector derives its demand in terms of passengers and cargo. Hence, manifesting the vision of the Master Plan requires meeting the strategic objective of maximizing air connectivity in parallel with efforts to grow Malaysia's economic base, particularly in terms of tourism and trade.

Strategic Pillars

Maximizing air connectivity requires commitment towards implementing three Strategic Pillars, which will be actualized through relevant action plans, outlined as part of the recommendations to the Master Plan:

- **The establishment and maintenance of a fair and competitive commercial environment**
A high-performing civil aviation sector can only exist in a commercial environment that is fair and competitive. While "fairness" is multi-dimensional, MAVCOM has articulated that it applies fair competition principle in terms of economic regulation of the Malaysian civil aviation sector, which promotes equity or distributive justice as part of the overall objective of maximizing consumer welfare, while also safeguarding the sector from anti-competitive practises. This principle is also expressed through effective consumer protection, as well as, appropriate public service obligations (PSOs)
- **The availability of appropriate airports infrastructure that is efficient and effective in terms of financial performance and service delivery**
High levels of air connectivity are enabled by an optimal airport infrastructure, which is defined as one which meets the service level requirements of airport users, i.e. passengers and airlines, as well as, one which is financially sustainable. Airlines choose to fly into airports that provide a high degree of operational efficiency and service quality, which affect their own efficiency, pricing, and networks. Given the high capital and operational costs involved in developing and running airports, it is also imperative for airports to achieve the most optimal returns relative to their funding costs
- **The establishment of a strong civil aviation-related human capital base to support the development of the sector**
High air connectivity and an optimal airports infrastructure are only possible if it is supported by effective and efficient human capital, not only in terms of technical skills, but managerial and administrative as well

Prerequisites for the Master Plan

It should be emphasized that the successful implementation of the Strategic Pillars outlined above hinges on two factors: the existence of strong institutions and the establishment of a National Aviation Policy (NAP or the Policy).

A. *Strong institutions*

The Government of Malaysia (Refer to MAVCOM Position Paper on Sequencing Liberalization for the Aviation Services Sector (July 2019).) plays many overlapping and, at times, contradictory roles in relation to the Malaysian civil aviation sector. A critical factor for the successful implementation of the Master Plan and its recommendations, therefore, is a stronger delineation of these roles and responsibilities. This is aimed at eliminating conflicts of interest, in addition to providing consistency in policy aims and directions.

Moreover, as outlined in Section 5 of this document, the implementation of the Master Plan's recommendations requires a relatively high degree of coordination between ministries and agencies. Hence, the capacity of these institutions needs to be strengthened in terms of human capital, technical and operational efficiency, as well as, technological inputs. For instance, as the global aviation industry evolves, capacity is required to assess and prepare for increased liberalization on one hand, and the game-changing impact of technologies, on the other.

B. *National Aviation Policy*

Notwithstanding the establishment of the NTP, the implementation of the Master Plan still requires the development of an NAP as its key enabling instrument. While the draft NTP² includes measures related to the civil aviation sector, these measures are placed within the context of a multi-modal transportation framework and are not necessarily specific to the aviation sector. As highlighted, the terms of reference for an NAP should include the following:

- Identification of clear objectives and priorities for the development of the civil aviation sector, with clear directions on the balance of priorities between economic, safety and security, environmental, and societal imperatives
- Overarching policies on the economic management of the civil aviation sector, including but not limited to, liberalization, and ownership and management of transportation assets
- Terms of reference for supplementary guidance for the sector, including legislation, regulations, and related plans and strategies

Interlinkages Within the Framework

Regardless of the organization of the Master Plan's recommendations according to respective pillars and overarching initiatives within the Framework, all components of the Master Plan are interlinked with each other. Therefore, these recommendations need to be implemented in a comprehensive, rather than in a piecemeal manner, for the Plan to be effective.

² The NTP was subsequently launched on the 17th of October 2019. The Policy document is available at: https://www.pmo.gov.my/wp-content/uploads/2019/10/National-Transport-Policy-2019_2030EN.pdf

Nonetheless, in order of priority, the action and implementation items that should be implemented first are outlined in Table 1. It should be noted that some of these action items may have a long implementation period:

Table 1: Priority Recommendations for the Master Plan

Strategic Pillar	Sub-sector	Action Item	Implementation Item	Implementation Period	Stakeholders
Establishing and maintaining a fair and competitive commercial environment	All	Reducing government interference in commercial decision-making	Abolishing the golden share in MAHB	Short-term	MOF, MAB
	Airports	Greater commercialization of the airports industry	Granting full capex responsibility to operators	Medium- to long-term	MAHB, MOT, MOF
		Improving service levels	Completing implementation of the QOS framework for all airports	Foundation-setting	MAVCOM, MAHB, SATSSB, other airport operators
			Reforming the ground-handling sub-sector	Medium- to long-term	MOT, MAHB, MAVCOM, ground-handlers
			Committing to integrated airport terminals	Medium- to long-term	MOT, airport operators

Master Plan Recommendations

The recommendations for the Master Plan were then developed based on the Framework explained above. These recommendations are summarized in Table 2:

Table 2: Summary of the Master Plan Recommendations

Prerequisite	Sub-sector	Action Item	Implementation Item	Implementation Period	Stakeholders Involved
National Aviation Policy	All	Developing an NAP	Developing an NAP	Foundation-setting	MOT

Objective	Sub-sector	Action Item	Implementation Item	Implementation Period	Stakeholders Involved
Maximizing air connectivity	All	Strengthening Malaysia's economic base	Coordinating tourism development plans with air routes in terms of the Air Traffic Rights (ATR) negotiations with other countries	Foundation-setting	Ministry of Tourism, Arts and Culture (MOTAC), Tourism Malaysia, MOT, MAVCOM, domestic and foreign airlines, airports

			Coordinating the development of air connectivity with initiatives, such as the Logistics and Trade Facilitation Master Plan (LTFMP)		MOT-LTFMP Taskforce, Ministry of International Trade and Industry (MITI), Ministry of Economic Affairs (MEA) MAVCOM, air freight companies, airports
	Airlines	Improving utilization of ASAs	Ensuring that ASAs are linked to connectivity considerations	Long-term	MOT, MAVCOM

Objective	Sub-sector	Action Item	Implementation Item	Implementation Period	Stakeholders Involved
Maximizing air connectivity (cont.)	All	Ensuring multi-modal, seamless connectivity	Establishing a policy commitment for transportation development plans to account for their impact on and connectivity with other modes of transport	Foundation-setting	MOT, MEA, MAVCOM, Agensi Pengangkutan Awam Darat (APAD)

Strategic Pillar	Sub-sector	Action Item	Implementation Item	Implementation Period	Stakeholders Involved
Establishing and maintaining a fair and competitive commercial environment	All	Enforcing a sound and updated aviation-related competition law	Applying competition law based on fair competition principle	Short- to medium-term	MAVCOM
			Applying competition law based on free competition principle	Medium- to long-term	MAVCOM
			Incorporating competitive neutrality principle and rules on subsidies	Medium- to long-term	MAVCOM
			Revision of Competition-related Guidelines to ensure relevance	Medium- to long-term	MAVCOM

Strategic Pillar	Sub-sector	Action Item	Implementation Item	Implementation Period	Stakeholders Involved
Establishing and maintaining a fair and competitive commercial environment (cont.)	Airlines	Promoting liberalization of ownership-related measures for the civil aviation industry	Phased approach to liberalize ownership/equity policy of airlines	Medium- to long-term	MOF, MOT, MAVCOM
			Phased approach to liberalize ownership/equity policy of ANSP	Medium- to long-term	MOF, MOT, MAVCOM
		Reducing government interference in commercial decision-making	Abolishing the golden share in MAHB	Short-term	MOF, MAB
		ASEAN community carrier	Championing the establishment of a community carrier in ASEAN	Long-term	MOT, MAVCOM, airlines
Making available appropriate airports infrastructure	Airports	Greater commercial behaviour of airports	Granting full capex responsibility to operators	Medium- to long-term	MAHB, MOT, MOF
			Introducing competition in two phases <ul style="list-style-type: none"> • Decentralization of MAHB • Introducing different airport networks 	Medium- to long-term	MAHB, MOT, MOF
		Improving service levels	Full implementation of QOS Framework for all airports	Foundation-setting	MAVCOM, MAHB, SATSSB, other airport operators

Strategic Pillar	Sub-sector	Action Item	Implementation Item	Implementation Period	Stakeholders Involved
Making available appropriate airports infrastructure (cont.)			Reforming the ground-handling sub-sector	Medium- to long-term	MAHB, MOT, MOF
			<ul style="list-style-type: none"> Linking ground-handling services to airport performance (via strengthening Conditions of Use) 		
			<ul style="list-style-type: none"> Liberalizing the ground-handling sub-sector 	Medium- to long-term	MOT, MAVCOM, GHJ holders, airports, airlines
			Developing a framework to measure the efficiency of Malaysia's airports	Foundation-setting	MAVCOM
	Airports	Improving service levels (cont.)	Committing to integrated terminals: Policy commitment that airport terminals need to be integrated. In instances where disparate terminals have been built, airside and landside connectivity need to be provided	Short-term	MOT, airport operators

Strategic Pillar	Sub-sector	Action Item	Implementation Item	Implementation Period	Stakeholders Involved
Developing a strong civil aviation-related human capital development base	All	Setting the baseline to develop a coordinated talent development strategy	<ul style="list-style-type: none"> Establishing a human capital database for the sector Establishing a human capital development working committee for the sector Study the sector workflow and value chain 	Foundation-setting	MOT, MOHR, MAVCOM, CAAM, industry players
		Developing and implementing an industry-wide coordinated talent development strategy	<ul style="list-style-type: none"> Developing effective career-pathing for the sector Setting up a pool training fund 	Short- to medium-term	<ul style="list-style-type: none"> Working committee MOHR, MOT, MAVCOM, CAAM, industry players
			<ul style="list-style-type: none"> Developing industry training modules involving partnerships between industry and academia 	Medium-term	Learning institutions, industry players

Conclusion

The Master Plan has been developed by MAVCOM as a set of proposals for the MOT. It is intended to be implemented over the long-term between 2021 and 2030. The years 2019 and 2020 are the foundation-setting years, where enabling measures—such as the establishment of new policies, accompanying strategies and plans, and other factors such as institutions and baselining—should be undertaken.

It must be emphasized that the following prerequisites should be met for the Master Plan to achieve its vision and objective of developing an economically sustainable and resilient civil aviation sector that will contribute significantly to Malaysia's trajectory towards a global economic centre of activities. These are:

- The strengthening of civil aviation-related institutions
- The development of an NAP
- The comprehensive and integrated implementation of all the Master Plan's recommendations