

RAIL INDUSTRY HANDBOOK



ABOUT MALAYSIA RAIL INDUSTRY CORPORATION (MARIC)

MARIC is an industry-led platform to promote coordination and integration among Malaysian rail players. It was established with the function to support and represent the voice of Malaysian rail industry players.

OUR MISSION

To promote the development of the rail industry and increase the visibility of the companies and their competencies.

OUR OBJECTIVES



To support government policies with regards to national rail industry development



To be the focal point for the local rail industry engagement in Malaysia



To maximize the benefit from government investment to the local rail and its supporting industries



To be the focal point in the strategic development for human capital, technology and supply chain

OUR COMMITTEE

The committee is governed by a Board of Trustee that consist of key players in the rail industry. The committee bring together years of experience, industry knowledge and strong linkages with relevant government ministries and agencies.



President

Datuk Dr. Mohd Yusoff
Sulaiman



Haniff Ghazali



Honorary Treasury

Adzlan Basir



Commonality & Standard

Mansor Tahir



Business DevelopmentFan Boon Heng



Funding & Incentive

Timothy John



MembershipDr. Arvind Hari Narayanan



Human Capital Development

Paismanathan Govindasamy

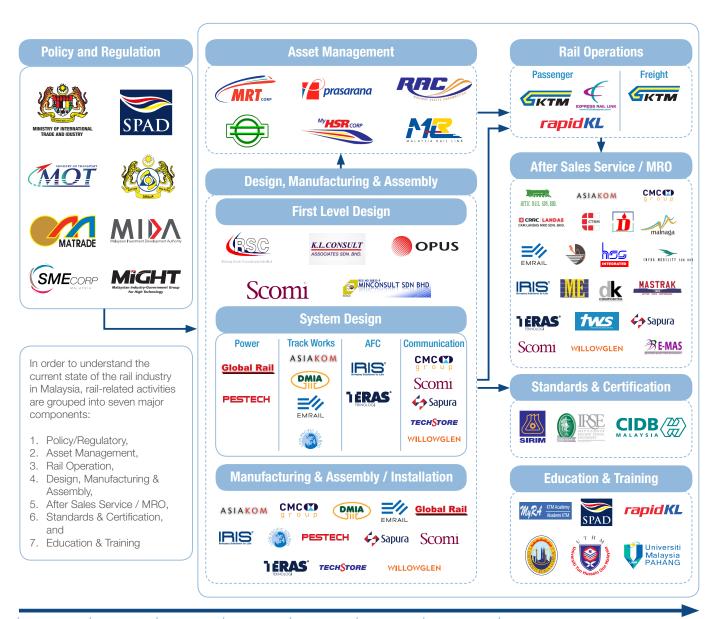
WHAT'S IN STORE

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Rail Industry Handbook 2017/2018 is expected to give an overview to the readers on the current landscape of the rail industry, local capabilities and opportunities.

The report outlines the rail industry players' competencies and capabilities that will provide as a guideline for rail companies to conduct business matching.

MALAYSIAN RAIL INDUSTRY OVERVIEW 2010-2018







Electrified
Double
Tracking
Ipoh-Padang
Besar

KTM Electric Train System FTS 1

2011



MRT 1 (Sungai Buloh Kajang Line)



KTMB Subang Skypark Rail Link

2012



Prasarana Sunway BRT



Prasarana LRT Ampang & Kelana Jaya Line extension to Putra Height

2013



ERL start operation in KLIA2

KTM Electric Train System ETS 2

2016



LRT 3 Bandar Utama-Klang Line Works starts RM11B

Sungai Buloh Serdang Putrajaya Line RM30B

MRT2

2017

KTMB Gemas JB Double Track RM9B

2018 ONWARDS



FUTURE PROJECTS

Malaysia-Singapore Rapid Transit (RTS) RM2B

MRT 3 (Circle Line) RM40B

East Coast Rail Link (ECRL) RM50B

Penang LRT RM8.4B



HSR RM50B

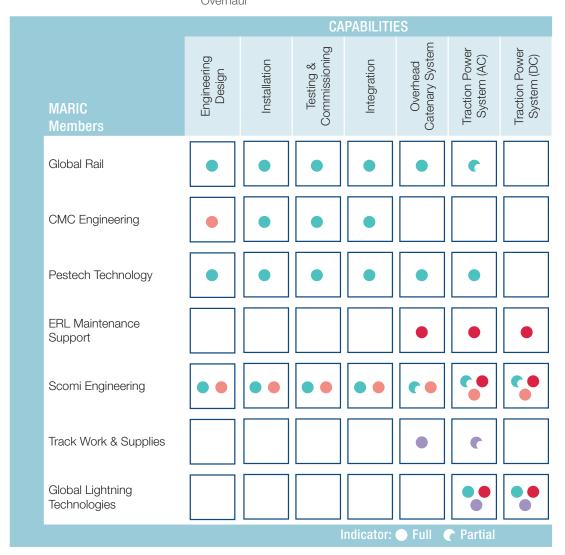
ANALYSIS OF LOCAL PLAYERS' CAPABILITIES

CLUSTER 1 : POWER & ELECTRIFICATION

In Power & Electrification cluster, our local companies have the full capability to undertake all of the works in system level component except for manufacturing of Traction Power System (DC). Currently, the MRO for power & electrification in existing rail lines is perform by the operators.

Now, local companies are able to undertake the Turnkey Project related to Power Electrification. Furthermore, the players are expanding their capabilities in maintenance of the station and power electrification systems.

Design, Manufacturing & Engineering Services & Consultancy
 Maintenance, Repair & Supplies & Traders Overhaul



CLUSTER 2: COMMUNICATION

In Communication cluster, local players has the full capability to undertake the works in system level. Malaysian telecommunication industry is already matured and able to offer a wide range of services to the transportation sector. Local companies can take up full Communication work packages for future projects.

- Design, Manufacturing & Assembly / Installation
- Engineering Services & Consultancy
- Maintenance, Repair & Overhaul
- Supplies & Traders

		Overna			CA	PABILITIE	S			
	MARIC Members	Engineering Design	Operating Engineering & Support	Installation	Testing & Commissioning	Integration	Communication Support	Control Centre	Radio System	Passenger Communication System
1	CMC Engineering		•	•	•	•	• •	•	• •	• •
	Asia Communication & Electronic				•					
:	Sapura Holdings	•	•	•		•	• •	•	• •	• •
	ERL Maintenance Support	•	• •		• •	• •	• •	• •	• •	• •
:	Scomi Engineering	• •	• •	• •	• •	• •	• •		•	
	Dom Industries			•	•	•	•			
	Tech-Store			•		•	•	•		
,	Willowglen					• •		••		
						ndicator:	Full	Partial		

CLUSTER 3: TRACK WORKS

In Track Works cluster, our local companies has the full capability to undertake Maintenance, Repair& Overhaul (MRO) and Installation/Assembly for the system level components. These local players has the potential to expand their capabilities in Engineering & Design and Testing & Commissioning.

In general, manufacturing of the track components is not feasible due to low volume except for sleepers. However, most of the local players especially MARIC members are capable to undertake the work in the value chain. They are capable to deliver big railway projects in Malaysia as well as in the region.

- Design, Manufacturing & Assembly / Installation
- Maintenance, Repair &
- Engineering Services & Consultancy
- Supplies & Traders

		Overhaul												
	CAPABILITIES													
MARIC Members	Engineering Design	Installation	Testing & Commissioning	Integration	Rails (stell/rolling)	Sleepers	Fastening System	Ballast	Turnouts & Crossing	Conductor Rail	Track Equipment			
CMC Engineering											•			
Asia Communication & Electronic	••	•	••	••										
Dhaya Maju Infrastructure (Asia)	•		•		•	•		•	•	•	•			
ERL Maintenance Support														
Track Work & Supplies														
Emrail						••								
Mastrak														
Lion Pacific		•												
Dom Industries														
Malnaga					••				• •		••			
			Indicate	or:	Full (Partial								

CLUSTER 4: ROLLING STOCK

Uncer this cluster, local players has the full capabilities to undertake maintenance, repair & overhul (MRO). The knowledge in rolling stock can be further expanded in areas of testing & commissioning and in installation & assembly.

Most of MARIC members are capable to perform complete MRO for whole rolling stock system. Their capabilities can be further developed through knowledge transfer by OEMs.

- Design, Manufacturing & Assembly / Installation
- Engineering Services & Consultancy
- Maintenance, Repair & Overhaul
- Supplies & Traders

OADADU ITIFO																	
CAPABILITIES																	
MARIC Members	Carbody & Cab Mask	Carbody Fitting	Bogies & Running Gear	Power System	Braking System	Interiors	Auxiliary System	Propulsion	On-board Vehicle Control	On-board Communication System	HVAC System	Door System	Lighting	Intercars Connection	Testing & Commissioning	Passenger Info System	Seat
CKM Landas MRO																	
Track Works & Supplies																	
ERL Maintenance Support																	
Scomi Engineering												•		•			
DK Composites																	
Artic Rail																	
Dom Industries						•										•	
Malnaga																	
Majestic Engineering																	
													Indica	tor:	Full	₹ F	artia

CLUSTER 5: SIGNALLING

In Signalling cluster, our local companies have the full capability to undertake Maintenance, Repair & Overhaul (MRO) and Installation/Assembly for most of the system level components. The local players could expand their capabilities in Requirement & Design, Testing & Commissioning and obtaining Certification through transfer of know-how from foreign technology partner.

Most of MARIC Members has either full or partial capabilities to perform design, manufacturing and installation for the signaling system. Opportunities for local companies to capitalized the MRO market could be materialized by collaborating with foreign OEMs. Signalling is a high tech knowledge where OEM treat it as a captive market and not willing to transfer knowledge to local players which limits expansion of opportunities.

Design, Manufacturing & Engin
 Assembly / Installation Cons
 Maintenance, Repair & Supping

Overhaul

- Engineering Services & Consultancy
- Supplies & Traders

		CAPABILITIES												
MAF Men	IIC ibers	Engineering Design	Operating Engineering & Support	Installation	Testing & Commissioning	Integration	Installation Materials & Tolls	Track-side Structures	Cabling	Power Supply				
Glob	al Rail	•	•	•	•	•		•						
СМС	Engineering	•	•	•	•	•		•	•	•				
Sapı	ıra Holdings	•	•	•	•									
Track	Work & Supplies						•	•	•	•				
ERL Supp	Maintenance port	•	•	•	•	•	•	••	••	••				
Emra	il	•	•	•					•					
Scor	ni Engineering	•	•	••	•	•	•	••	••	• •				
				I	ndicator: (• Full	Partial							

CLUSTER 6: AUTOMATED FARE COLLECTION (AFC)

In this cluster, our local companies have full capability to undertake all of the work in all system level components and are able to undertake the turnkey projects in AFC. There are opportunities for local players to capture the international market and be a global player.

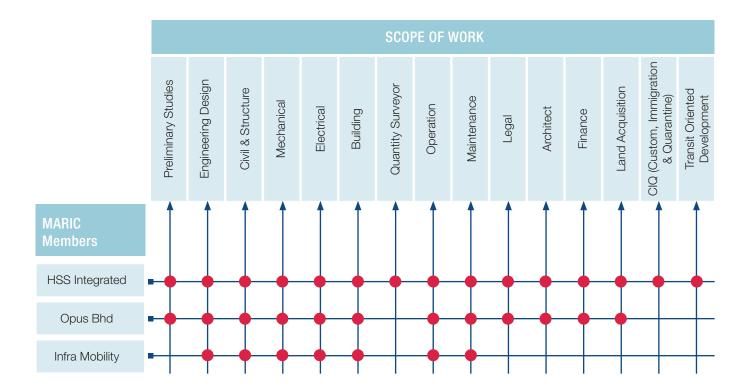
The technologies in AFC is rapidly evolving, from paper ticketing to ticketless that uses online (e-ticket) or mobile application. Integrated & smart ticketing is also one of the areas that our local companies should look into to provide smoother transaction and improve public transport journey.

- Design, Manufacturing & Assembly / Installation
- Maintenance, Repair & Overhaul
- Engineering Services & Consultancy
- Supplies & Traders

CAPABILITIES													
MARIC Members	Engineering Design	Installation	Testing & Commissioning	Integration	Operation Support	Gate Computer System (GCS)	Station Computer System (SCS)	Central Computer System	Ticket & Automated Vending Machine	Software Development	Media	Park & Ride System	
IRIS Corporation	•			•	•	••	••	••	•	••	•		
Teras Teknologi				•	•	• •	••	••	• •	••	•	••	
CMC Engineering													
									Indica	tor:	Full (Partial	

CLUSTER 7: ENGINEERING & DESIGN CONSULTANTS

Our engineering & design consultants are able to provide technical consultancy services for the railway projects except for the rolling stocks and some aspects of signalling systems. These are the capabilities that need to be developed by our local consultants in order to capitalized the business in this field.



LIST OF MARIC MEMBERS



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Tech-Store Malaysia Sdn Bhd

Trackwork & Supplies Sdn Bhd

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WILLOWGLEN

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Eligibility Requirements

- Local equity/shareholding must be 51% or more;
- At least 70% of senior managemant and executives must be of Malaysia citizen;
- The company must be doing work related to rail industry product, services and/or its supporting industries

Contact Us

If you want to become member, or to learn more about the association, kindly contact:

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Pertubuhan Industri Rel Malaysia (PPM-031-10-170452017) MiGHT Partnership Hub, Jalan Impact, 63000 Cyberjaya, Selangor

2018 BUDGET TOUCHPOINT ON RAIL INDUSTRY

FIRST THRUST: INVIGORATING INVESTMENT, TRADE, AND INDUSTRIES

High-impact investment, focusing on industries:







Logistics



Aerospace



Rail



Robotics



Automation



Export-oriented

RM3 Billion

Transportation Development Fund

to procure vessels as well as develop aerospace technology industry and rail.

SECOND THRUST: MOVING TOWARDS TN50 ASPIRATION

East Coast Rail Link (ECRL) Project



Port Klang – Pengkalan Kubor



RM55 billion

MRT2 Line



Sungai Buloh
- Serdang Putrajaya Project



RM32 billion

THIRD THRUST: EMPOWERING EDUCATION, SKILLS AND TRAININGS, AND TALENT DEVELOPMENT

- Enhancing Technical and Vocational Education Training
- To support the development of skilled workers in the rail sector
 - the Government will establish the National Rail Centre of Excellence (NRCOE) to oversee and coordinate quality assurance as well as accreditation of national rail education and training.
 - Malaysia Rail Link Sdn. Bhd. in collaboration with IPTAs will train 3,000 professionals in this industry.

FOURTH THRUST: DRIVING INCLUSIVE DEVELOPMENT

Bumiputera Wellbeing Transformation Policy

RM2.5 Billion

for higher education scholarship and training programmes under the Council of Trust for the People (MARA).

Benefits

90,000 students Includes 1,500 students

in the critical fields such as Artificial Intelligence, signalling and rail.

RAIL INDUSTRY



Initiative under



Science to Action (S2A) is an extension of the current National Transformation Agenda. The initiative aims to intensify Science in building a Knowledge-based Economy with the objective of rising the profile of Science and Technology (S&T) to support nation building. It was launched by the YAB Prime Minister in November 2013 and comes under the purview of the Science Advisor to the Prime Minister. Might is the implementing Agency to coordinate and manage its programmes.



The Malaysian Industry-Government Group for High Technology (MIGHT) is a government implementation agency under the purview of the Prime Minister's Department. MIGHT plays a key role in developing Malaysia's high technology for business through its role as a think-tank, private-public consensus building and business nurturing platforms. It is an organisation built on the strength of public-private partnership with more than 100 members, both local and international, from industry, government and academia.