



MINISTRY OF TRANSPORT
MALAYSIA

Malaysia Rail Digitalization Strategies and Policies

Towards National Rail Digital Transformation

High-Level Meeting on Deepening Digitalization of International Rail Transport in Asia-Pacific, 13-15 May 2025, Xi'an, China

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WHAT IS DIGITALIZATION?

Digitalization is one of the top priorities for the rail sector and its future. The ultimate aim is to offer highly efficient, safe and attractive transport options to customers and make the most of the opportunities offered by digital transformation

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WHAT IS OBJECTIVE DIGITALIZATION?

Malaysia Digitalization Strategy would drive the organization to collectively deliver on the objectives of achieving:

- Market leader in railway transport
- Service profitability
- Uninterrupted train services
- Work process efficiency

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Innovative

Customer Experience by modelling a transparent communication with customers and providing more digital experience such as intermodal mobility and journey planning solutions

Insightful

Corporate Services by adopting technology in work process to increase productivity and reduce cost

Improvise

Point of Sale by offering seamless digital experience across all channels to increase the revenue

Impeccable

Assets Management by digitally capturing data about the rail infrastructure and rolling stock to minimize unplanned maintenance and improve planned maintenance programs

Impressive

Operation Efficiency through modernization and digitization of train control systems

PART 4 | 5 PILLARS OF MALAYSIA DIGITALIZATION

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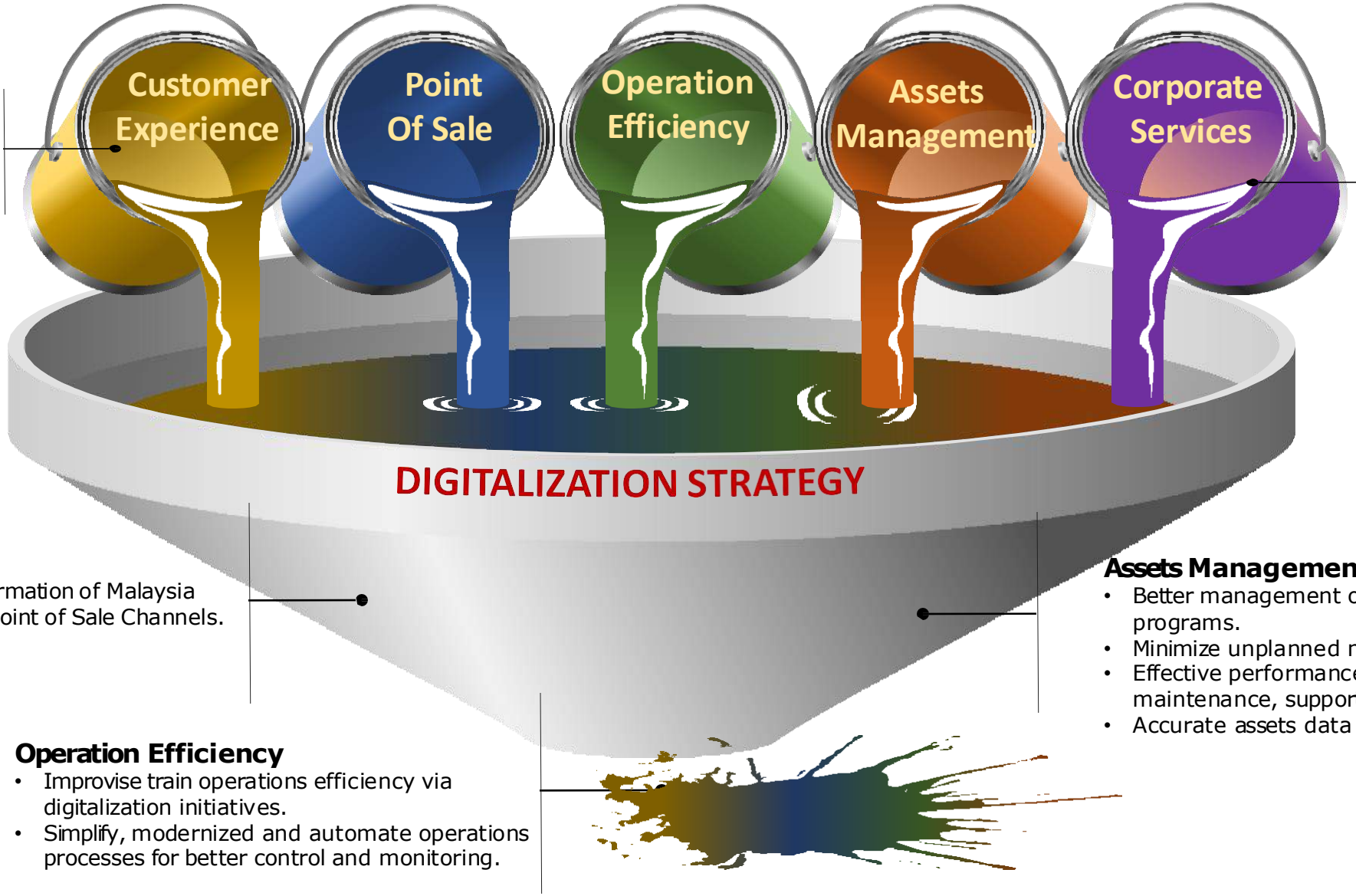

Customer Experience
- Increase customer satisfaction by providing more value-added online services while generating new revenue streams.

Corporate Services
- Save costs, time and digitally improve productivity and efficiency.
- Improve an organization's work environment.
- Cost optimization.

Point of Sale
- Enhancement & transformation of Malaysia Strategic Business Units Point of Sale Channels.

Assets Management
- Better management of assets maintenance programs.
- Minimize unplanned maintenance works.
- Effective performance measures for maintenance, support and engineering services.
- Accurate assets data management.

Operation Efficiency
- Improvise train operations efficiency via digitalization initiatives.
- Simplify, modernized and automate operations processes for better control and monitoring.

PART 5 | MALAYSIA DIGITALISATION STRATEGY FOCUS AREAS

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01

CUSTOMER EXPERIENCE: Smart Ticketing System (Open Payment, QR e-wallet, NFC), SuperApps, Smart Freight/Cargo & Logistics System, AI ChatBot, AI-Driven Call Centre Agent, AI-Driven Virtual Assistance

02

POINT OF SALES: Digital Advertising & eCommerce, Dynamic Pricing

03

OPERATION EFFICIENCY: IOT & Predictive Maintenance, sensors for trains & track, Digital TCCC, SCADA, AI-Driven CCTV

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04

ASSETS MGMT: Sensors for trains & tracks

05

CORPORATE SERVICES: Data Analytics, AI-Driven Productivity Systems, AI-Driven Enterprise Knowledge Mgmt





Digital Transformation Policy: Comprehensive roadmap

Data Governance Policy: Data integrity, metadata standards

Cloud & Infrastructure Policy: Migration to Azure

API & Integration Policy: Open development standards

Cybersecurity Policy: Compliance with Cybersecurity Act 2024

Data Privacy Policy: Compliance with PDPA

AI & Innovation Policy: AI, chatbot, digital twin

Change Management Policy: Training & communication

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- Malaysia to implement strategy and policy in phases ☑
- Priority on ticketing system, digital Traffic Control Command Centre (TCCC), and cloud migration ☑
- Presentation to IT committee and Top Management ☑
- Policy execution supported by Digital Governance Committee ☑



THANK YOU

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