



**Arab Academy**  
for Science, Technology & Maritime Transport  
الأكاديمية العربية للعلوم والتكنولوجيا والنقل البحري



**معهد تدريب الموانئ**  
Port Training Institute

## Training and Organizational Development Conference **TOD'25**



### The Impact of **Artificial Intelligence** on the Future of the Human Workforce

"Building Today's Talent, Achieving Tomorrow's Excellence "

03-04 **DECEMBER** | 2025

Helnan Antoiades Palace Hotel  
Alexandria- Egypt



Training and Organizational Development  
Conference **TOD'25**

"Building Today's Talent, Achieving Tomorrow's Excellence "



# Bridging the Skills Gap: Training as the Key to Malaysia's AI-Ready Workforce



**Professor Syed Waqar Hasan Zaidi**  
**Deputy Vice Chancellor Services and Registrar**  
**Netherlands Maritime University College (NMUC)**



# INTRODUCTION

- **AI is transforming Malaysia's economy**
- **AI integration in Malaysia's industries**
- **AI drives innovation, efficiency, and competitiveness**

# AI Roadmap 2021 - 2025

- **Goal:** To create a self-sustaining AI Innovation Ecosystem for AI development, leveraging quadruple helix collaboration guided by Responsible AI Principle.

2020

National AI Roadmap identifies upskilling and reskilling as priority for AI-readiness

2021

National Digital Workforce Council launched to train graduates and TVET students in AI

2023

MOSTI announces 600,000 Malaysian workers must be reskilled in AI over next 3-5 years

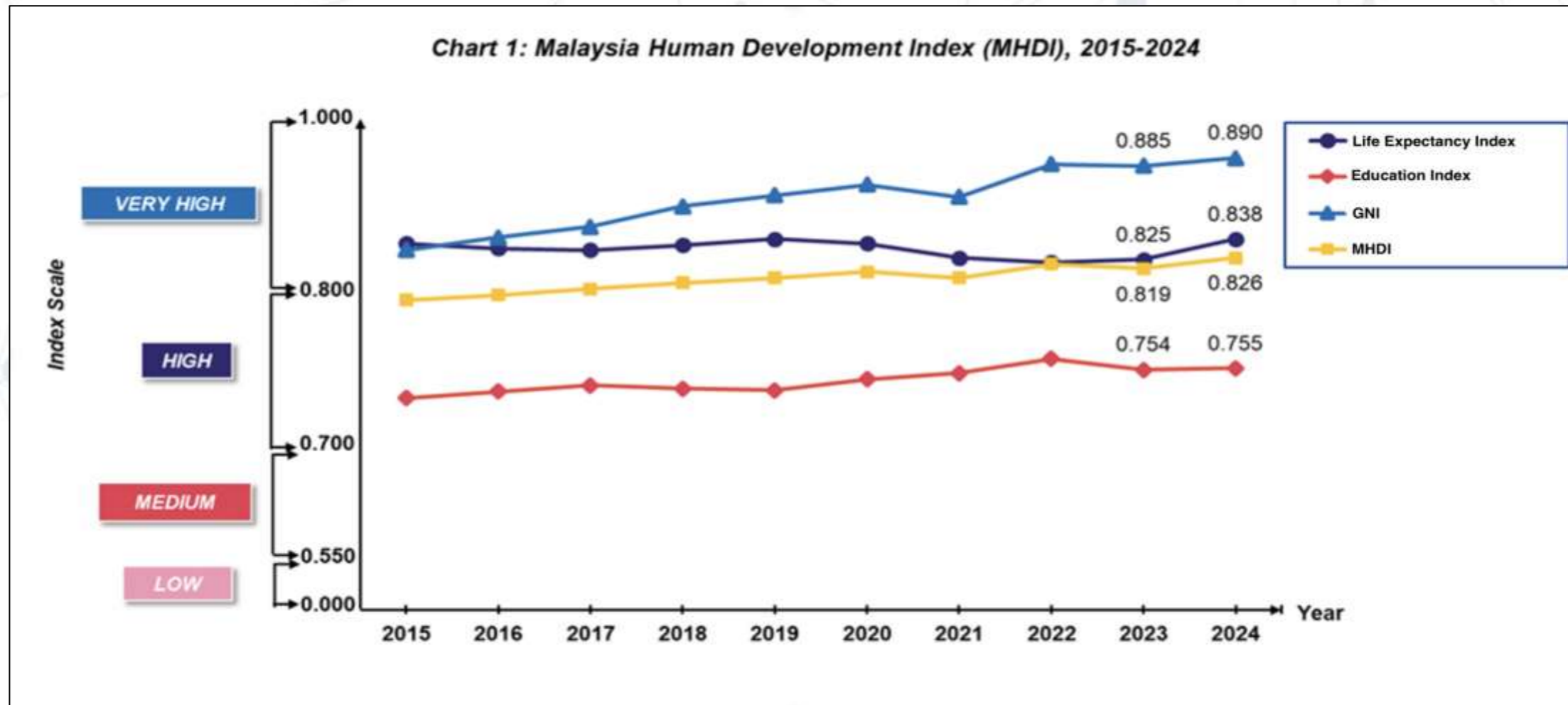
2024

University-led programs (DIP, Sasbadi-Agmo) expand AI reskilling for students and startups

2025

600,000 workers trained across manufacturing, services, IT, healthcare

# Malaysia's Human Development Index (2015-2024)



(Adapted from: Dept. of Statistics Malaysia, 2025)

# AI Integration in Malaysia's Industries

Industry	Example of AI integration
Manufacturing	Predictive maintenance, robotics, quality control → reducing downtime & boosting productivity
Finance	Fraud detection, credit scoring, digital banking → enhancing security & financial inclusion
Healthcare	Diagnostics, telemedicine, personalized medicine → improving access & patient outcomes
Agriculture	Precision farming, smart irrigation → increasing yields & sustainability
Higher Education	Curriculum transformation → Malaysia's graduates are better positioned for international careers in tech and innovation

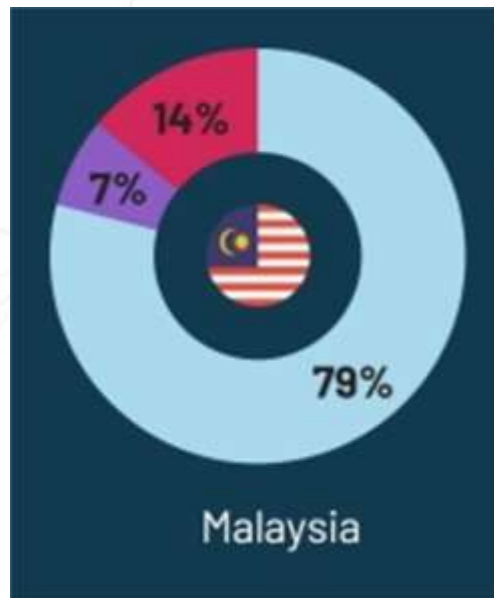
# Strategic Importance of AI

## AI as a Catalyst for National Progress

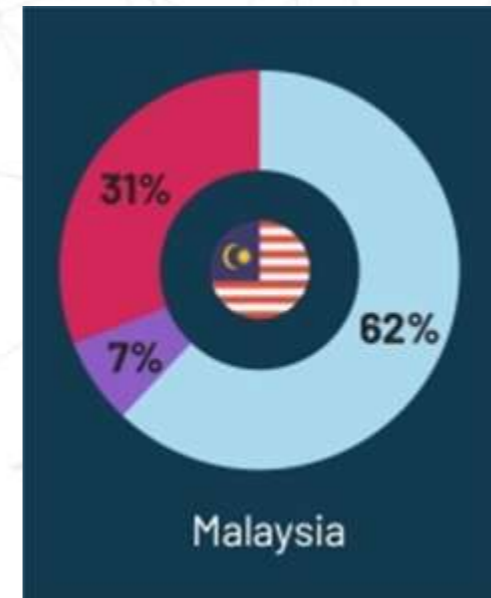
- Drives innovation, productivity, and global competitiveness
- Supports inclusive and sustainable development (Malaysia MADANI)
- Powers digital economy growth (e.g., MyDIGITAL Blueprint)
- Enhances public services and citizen engagement

# Strategic Importance of AI

How likely do you think AI will **change** how you do your job in the next five years?



How likely do you think AI will **replace** your current job in the next five years?



Based on interviews with over 500 Malaysian adults aged 18+ (Adapted from: IPSOS, 2024)

# Workforce Challenges

## Challenges to AI Readiness

- Skills mismatch and low AI literacy
- Limited access to training across nation
- Limited industry-academia collaboration
- Resistance to change

# AI Talent Development Initiatives

Programme	Agency	Focus Area	Delivery Mode	Target Group
Peneraju Teknologi Applied AI	Yayasan Peneraju	Applied AI, data science, tech skills	Online & blended learning	Bumiputera youth and professionals
Tertiary Education Sponsorship Program	MARA	STEM, technology, innovation	University sponsorships	Bumiputera students pursuing higher education
Industry4ward, SEBA, SCOPE, National Training Week	HRD Corp	Digital skills, AI, industry 4.0	Nationwide workshops & e-learning	Malaysian workforce (public & private)

# AI Talent Development Initiatives

Initiative Type	Programme	Lead Organization	Focus Area	Target Group
Industry-driven Upskilling	AIForMYFuture	Microsoft	AI literacy, digital skills, career readiness	Malaysian youth, job seekers, educators
AI Integration in Academia	Curriculum updates aligned with AI trends	Public & private universities	AI, data science, machine learning, ethics	University students, faculty

# AI Talent Development Initiatives

Initiative Type	Programme	Lead Organization	Focus Area	Target Group
Inclusive AI Education	AI TEACH Program	MCMC & Microsoft	AI literacy, digital skills	B40 communities, women (incl. single mothers), PWDs
Mobile Learning & Bootcamps	Career on Wheel, Simulators on the Bus	NMUC (New Media University College)	AI bootcamps, hands-on tech training	Youth, underserved communities, rural learners

# Measuring Impact 2025

## Tracking Progress and Sustainability

- **KPIs:** Number of workers reskilled, job placements, employer feedback



# Measuring Impact 2025

## Tracking Progress and Sustainability

- **Incentives** for AI continuous learning (e.g., Incentives include a 100% Investment Tax Allowance (ITA) on qualifying capital expenditure for 10 years, offsetting against 70% of statutory income)

# Conclusion

- Training is the key enabler for digital transformation
- Urgent action needed to close the AI skill gaps
- Collective effort from government, industry, academia, and communities
- Empowering Malaysians for the future



**Arab Academy**  
for Science, Technology & Maritime Transport  
الأكاديمية العربية للعلوم والتكنولوجيا والنقل البحري



**معهد تدريب الموانئ**  
Port Training Institute

## Training and Organizational Development Conference **TOD'25**



### The Impact of **Artificial Intelligence** on the Future of the Human Workforce

"Building Today's Talent, Achieving Tomorrow's Excellence "

03-04 **DECEMBER** | 2025

Helnan Antoiades Palace Hotel  
Alexandria- Egypt

